HSF-88-02

Labour Market Analysis for Women in Maintenance

Ontario
Ministry
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Technical Report Documentation Page

Labour Market Analysis for Women in Maintenance

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Number: HSF-88-02

Date of Publication: August 1988

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235-4444

Abstract:

The Ontario Ministry of Transportation (MTO) commissioned Compusearch/IMSA to conduct a labour market analysis for women in maintenance occupations; the overall objectives of the study were, first, to determine the external barriers hindering the entry of women into the Ministry's highway maintenance group, and, secondly, to develop strategies to be employed for increasing entry into this group.

One of the preliminary tasks was to carry out a literature review related to women and blue-collar (non-traditional) employment. A second task was to develop a profile of the labour pool available for potential employment in maintenance positions with the Ministry. Further, a set of personal-interview surveys were conducted with four distinct groups: female job seekers, MTO female employees, Canada Employment Centre counsellors, and competitive employers.

The labour pool analysis indicates that the labour supply for highway maintenance jobs is not an issue in staffing highway maintenance positions; however, present skill levels and occupational patterns suggest that there are few trained females in these positions.

The survey sample, while small, was indicative of the most receptive target groups for recruiting activities. These groups are:
- skilled women in apprenticeship programs or in training colleges;
- young women looking for blue-collar jobs or who have an expressed interest in the same;
- single mothers, who appear to be highly motivated by the pay schedules of highway maintenance jobs;
- women currently in lower-paying blue-collar jobs with other maintenance-type employers.

The results of the interviews also suggested that any attempt to attract additional females to the MTO labour force would require a substantial increase in the flow of information about job availability, job content, and job requirements. Advertisements and promotional materials should be simply written and should cover the important factors of relevance to potential employees; the positive elements of the jobs should be highligted along with indications of working conditions to be expected.

Comments: MTO client: Highway Operations and Maintenance

Key words: blue collar job, labour profile, women, highway maintenance, opinion survey, hiring strategy

Distribution: Limited.

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HSF-88-02

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Institute for Market and Social Analysis

COMPUSEARCH Market and Social Research Ltd.

Published by
The Research and Development Branch
Ministry of Transportation, Ontario
Hon. Ed Fulton, Minister
D.G. Hobbs, Deputy Minister

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CNCP Dialcom Electronic Mail: 23:MIN006

August 1988

89-05342/

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Foreword

A major objective of the Ontario government and of the Ministry of Transportation's (MTO's) employment equity program is to increase the number of women in non-traditional and under-represented occupational groups. Accordingly, MTO's program includes an on-going policy to increase the number of women in the "maintenance services" category.

In order to find ways to improve on the results currently being obtained, a consultant was hired to examine external factors related to the current supply of labour for permanent and seasonal maintenance service occupations within MTO and to develop strategies to obtain increases in female representation.

This report presents the consultants' findings and strategies, which are under review for pilot-testing in selected districts of MTO. Data on employment opportunities and hiring patterns in the selected test districts are being examined by MTO staff in order to develop a process for implementation of adopted strategies.

Executive Summary

A. Objectives of the Study

The overall objectives of this study were:

* to determine the external barriers hindering the entry of women into the Ministry of Transportation maintenance group; and,

* to develop strategies to be employed in test sites for increasing entry.

To the extent possible, we were instructed to concentrate upon external factors, i.e. those not related to the internal structure, practices, or attitudes of male MTO workers.

B. Main Tasks

The main tasks undertaken to achieve these objectives were:

1) to carry out and present the results of a literature review related to women and blue-collar positions -- more specifically to those things which might attract women to blue-collar jobs (bridges) and those things with might prohibit women from accepting or undertaking blue-collar employment (barriers);
2) to develop a profile of the labour pool available for potential employment in maintenance positions with the Ministry;
3) to design and implement surveys of:
   - female job seekers;
   - MTO female employees in highway maintenance positions (expanded to include other field-work activities in order to achieve an adequate sample size);
   - Canada Employment Centre counsellors responsible for dealing with female applicants;
   - representatives of employers with employees similar to those found in MTO's maintenance group.

   This will permit a bridges-and-barriers analysis, which is an identification of those factors which promote entry into maintenance positions (bridges), and those which impede entry into the same positions (barriers);
4) to develop targets and strategies for increasing entry into maintenance positions;
5) to identify pilot test-sites for implementing selected strategies and a method of assessing impacts;
6) to prepare and present final reports and results.

C. Findings and Recommendations

i) The Environment

The female labour pool is substantial. Thus a supply of potential female applicants for Highway Maintenance Jobs is available in all MTO districts.

As a starting point for analyzing the question of why there are few females in highway maintenance positions, it was necessary to ensure that the pool of available employed and unemployed females was not so small as to constitute a supply problem. The lowest level of unemployed young females (15-24 years of age) was approximately 300-500 in several of the MTO districts, with the total available female labour force being several times this size. In the majority of cases there are thousands of unemployed women. Even with the present level of unemployment, turnover is high in blue-collar occupations, and it would appear that the labour supply for highway maintenance jobs is not an issue in staffing highway maintenance positions. In general the trend is for jobs in non-service occupations to be on the decline while jobs in the service sector are growing. Nevertheless, MTO vacant jobs appear to face a substantial-sized workforce from which to draw employees within most districts.

The trained female labour pool is small.

The issues that relate to external barriers to application for and entry to highway maintenance jobs are more related to the skill levels of the women who will apply, and to the attitudes and perceptions of all parties involved. Additional information on existing skill levels, given below, indicates that many females do not have the initial skills demanded for the more complex maintenance positions such as carpenters and electricians. This will change over time if, and as, more women enrol in these programs in colleges and trade schools, and as women come to perceive these occupations as increasingly commonplace and appropriate.

Construction, machining, and transport are the three blue-collar occupation categories in which fewest women are presently employed. Only about one in five unemployed women are in a blue-collar occupation remotely related to highway maintenance jobs. Thus, despite the availability of a sizeable labour force from which to draw, present skill levels and occupation patterns suggest that there are few trained females presently seeking employment in these positions.

One of the objects of the survey undertaken at MTO's request was to develop an assessment of the external conditions which could be addressed in any attempt to attract women to highway maintenance positions. This is developed further below.

The female labour pool, skilled and unskilled, does not appear to be attracted to substantial alternate employment avenues in MTO districts.

It is not the case, at least from the small sample of competing employers we interviewed, that other employers of blue-collar women in maintenance-type jobs are attracting the majority of blue-collar applicants away from the Minstry of Transportation. They too seem to have very few women in their labour force contingent, and do not appear to be aggressively seeking to attract more female employees. The Ministry has several advantages over others in this field. These include a relatively attractive pay schedule for maintenance positions, reasonable security, and government benefit schedules.

ii) Perceptions of Highway Maintenance Jobs

The major (perceived) positive characteristics of MTO jobs in highway maintenance:
In developing a strategy for attracting women to highway maintenance jobs, the following perceived job-related factors provide bridges to entry:

- these jobs pay well;
- these jobs (if seasonal) can lead to permanent employment;
- there is an excellent benefit structure as well as a perceived security level above that thought to be related to jobs in the private sector;
- working outdoors provides a healthy environment;
- employees have a chance to learn and apply new skills.

The major (perceived) negative characteristics of MTO jobs in the highway maintenance field:

- high noise levels;
- dirty environments;
- risk of injury;
- attitudes of male co-workers;
- not the appropriate kind of job for a woman.

iii) How Can Women Be Attracted to MTO Highway Maintenance Jobs?

Strategies

Even though many jobs are seen and are actually gained through some form of personal contacts, women will not seek this avenue without some reason to believe that these efforts will be fruitful and that they themselves will be taken seriously when they do apply for jobs.

As a general strategy it is recommended that the Ministry do the following:
- project the positive aspects of the jobs, concentrating on pay, fringe benefits, the healthy outdoor lifestyle, and new skill development;
- develop a set of female stereotypes both within and external to the workplace in order to desensitize MTO workers to the entry of increased numbers of females, and to promote maintenance work as desireable and a ready option for women looking for or considering work in non-traditional fields;
- develop literature which indicates an understanding of potential negative aspects of particular jobs but tells job-seekers how MTO has addressed their misgivings;
- consider programs which lessen the impact of the negative features on female workers, such as assigning women to work areas and sites in pairs or teams, emphasizing and providing safety equipment, and reviewing the issue of allocation of overtime and shift work to see if there are any ways of providing increased choice to workers of both sexes.

Major Elements of This Strategy Should Include:

1) First-tier strategies:

These first-tier strategies require only some form of promotional or advertising activities on the part of MTO.

A point made continually by job seekers and C.E.C. counsellors during interviews was that there was a lack of information about when jobs were available, the nature of the jobs, and the skills or abilities necessary to apply for the job. In addition, interviews with female MTO employees and competitive employers suggest that the amount of information perceived as readily accessible on the availability and nature of blue-collar positions is minimal, or is not well distributed. This suggests that a major element in any attempt to attract additional females to the MTO labour force would require a substantial increase in the flow of information about job availability, job content, and job requirements. Suggested strategies are:

- wider advertising of these jobs within MTO's own workforce, in C.E. centres, and in community colleges or training centres which could serve as potential feeders to MTO. Such advertising would highlight positive factors associated with highway maintenance jobs. Job description brochures or kits might well provide an easy way of providing descriptions of job content, job requirements, and special considerations available for female job entrants;
- creation of visual role models through the use of posters and job promotion/explanation literature;
- literature and employment information packages which tend to deflect perceived negative features of the jobs, i.e., indications of safety precautions, protective equipment, and accident-free work records.
- development of briefing sessions for male workers, to inform them on the impact of having women in the work environment;
- development of very clear guidelines regarding the physical and knowledge requirements of each particular job and emphasize in any literature that on-the-job training is available.

2) Second-tier strategies:

These second-tier strategies require some policy or job-related action be undertaken by MTO, and constitute a possible course of action to deflect perceived negative features of jobs in highway maintenance. Such strategies should not call for actions or activities which would substantially favour one sex.

- couple jobs with training programs directly related to the jobs offered by MTO in highway maintenance. On-the-job training (for field maintenance positions not requiring high-skill training and credentials) could be advertised or promoted to attract women to these positions;
- provide some assistance to downplay the impact of the negatives, e.g., adopt a policy of letting women work in pairs;
- provide advancement opportunities by increasing the draw of permanent employees from the ranks of seasonal workers within highway maintenance occupations;
- provide an employment option which permits workers of both sexes some choice about how often and when they will work overtime hours. This may entail making shift/job rotation possible within field maintenance positions, or providing substantial shift wage differentials (as an incentive to work night or irregular shifts).

There was a continuing concern on the part of women seeking jobs and presently working in highway maintenance jobs regarding the negative attitudes of male co-workers, especially when women were to be placed in situations where they were the only females. This applied particularly to road-crew and field-oriented jobs. This suggests two companion corrective strategies: permit or require women to work in pairs or teams, and inform male employees about the impact of the presence of female workers in a traditionally male work situation.

iv) Which Women Should be Attracted – The Target Groups

In the simplest sense, the basic target group for information, promotion, and recruiting activities is anyone who might qualify for the job. In practical terms, however, written and visual material must be targetted to particular groups in order to be most effective.

The survey sample, while small, is suggestive of the most receptive target groups. These groups are:

- skilled women in apprenticeship programs or in training colleges;
- young women looking for blue-collar jobs, or who have an expressed interest in this type of position;
- single mothers, who appear to be highly motivated by the pay schedules of highway maintenance jobs;
- women presently in lower-paying blue-collar jobs with other maintenance-type employers.

It is interesting that day-care did not emerge as an overriding issue with respect to employment in highway maintenance jobs. It would appear that many mothers have either found day-care for their children, or regard that as a problem which they can overcome if they can find a reasonably paying job. It may also reflect the fact that the majority of women interviewed had school-age children. This would appear also to underscore the fact that shiftwork and overtime are major impediments to some women.

Direct mail techniques, mass advertising, and major newspaper campaigns are not recommended as means of reaching these target audiences. Rather, approaches which focus on the supply system for trained personnel (eg. training colleges, apprenticeship programmes) as well as the flow of unemployed women through C.E.C. offices would appear to be better alternatives for informing women of what highway maintenance jobs have to offer. Since many blue-collar jobs are learned of through friends or other personal contacts, it is suggested that MTO jobs be widely advertised within MTO offices. This would provide at least a basic informational network through which to inform local women interested in this type of work. Care should be taken to insure that the information is passed to women employees, irrespective of their classification or job category. Information packets, kits, posters, brochures, and clearly written job announcements are all excellent devices for attracting a potentially hesitant workforce, by taking the time to break down barriers and reinforce positive characteristics of the job.

Advertisements and promotional material should be simply written, and should cover the important factors of relevance to these women. The positive elements of the jobs should be consciously highlighted and displayed in visual form. Consideration should be given to testimonials by satisfied workers in an effort to develop role models and attitude identification. Negative attitudes regarding the safety and cleanliness of the work environment are sufficiently strong that consideration should be given to deflecting negative attitudes by indicating that the Ministry is both aware and considerate of the special needs of women as they enter the vanguard of the female labour force in highway maintenance occupations. Thus, literature should cover safety, cleanliness, and other working conditions.

Visual imagery could be particularly effective given the lack of female role models in this field. Pictures depicting women in various job situations and with straightforward, truthful language describing what they do, how they got there, and how they feel about what they are doing, are recommended. The target groups for such advertising are likely to be very sensitive to the negative features of working in a male-dominated work situation.

v) Suggested Sites for Testing

The criteria used for choosing sites include:

- dissimilarity of location with respect to labour force characteristics, female job-seeker profiles, MTO job types available, and base demographic differences;
- availability of a reasonably sized female labour force with some blue collar experience;

The recommended sites for implementing and testing the strategies listed above are Toronto, North Bay, and London. North Bay and London are quite different with respect to reported job type, educational levels and desires of job seekers, jobs being sought, and base demographics. Toronto, with a Canada Employment Centre office specializing in placing women in blue-collar jobs, would provide a potential benchmark against which to compare the other three centres.

In implementing any strategy to increase the participation of women in highway maintenance positions, it would be useful to be able to gather information regarding local employment conditions, plant openings and closings, and conditions which might influence the outcome of any strategies which were implemented. C.E.C. counsellors are well-placed to provide this information on an up-to-date basis. As well, C.E.C. counsellors figure prominently in one of the strategy components, i.e. that of providing more information to women applicants through information kits or brochures. Cooperation of the counsellors is one element of a successful recruiting strategy, and a necessary element in the transfer of information regarding jobs and skills required to female job seekers. Accordingly, it is recommended that some of the sites be chosen from among the five areas used for the gathering of survey information.

vi) Methods for Evaluating Results

Results of the strategies suggested in this report should be quantified in terms of increases in several variables over past competitions for identical positions:

- the raw increase in numbers of applicants;
- the ratio of male to female applicants for each job and for the maintenance job category as a whole;
- numbers of applicants who appear well-qualified for the vacant position or who are shortlisted;
- percentage of positions with an increased percentage of female applicants;
- numbers of females hired;
- percentage of new jobs filled by women.

As well, consideration should be given to ascertaining subjective perceptions of C.E.C. counsellors, newly-hired and longer-term female MTO employees, males working alongside women in maintenance jobs, and MTO personnel staff.

Such an evaluation would best be carried out using information from past competitions for highway maintenance jobs as a basis for comparison.

1/ Introduction

The Ministry of Transportation of Ontario (MTO) commissioned Compusearch/IMSA to conduct a labour market analysis of women in maintenance; the overall objectives of the study were, first, to determine the external barriers hindering the entry of women into the MTO highway maintenance group, and secondly, to develop strategies to be employed in test sites for increasing entry into this group.

A series of primary tasks were undertaken to achieve these objectives. One of the initial tasks was to carry out a literature review related to women and blue-collar (non-traditional) positions -- more specifically, the literature review was to identify from previous empirical research those factors which might attract women to blue-collar jobs (bridges), and those things which might prohibit women from accepting or undertaking blue-collar employment (barriers).

A second major task undertaken to achieve project objectives was the development of a profile of the labour pool available for potential employment in maintenance positions with the Ministry. This involved secondary data analysis of government databases (census data from Statistics Canada, data from the Labour Force Survey), aggregated to the level of eighteen MTO districts, estimated forward to 1986.

A set of personal-interview surveys were conducted with four distinct groups: female job-seekers, MTO employees, Canada Employment Centre counsellors, and competitive employers. Interviews were completed with sixty female job-seekers (interviewed at five Canada Employment Centre offices, one in each of the MTO regions), sixty MTO female employees presently in highway maintenance positions (expanded to include other field-work activities, such as weigher and checker occupation groups, to achieve an adequate sample size), ten Canada Employment Centre counsellors (responsible for dealing with female applicants) at five offices across the province, and five representatives of employers with employee categories similar to those found in MTO's highway maintenance group.

Data from each of the group surveys permitted a bridges-and-barriers analysis, which is an identification of those factors which promote entry into maintenance positions (bridges), and those which impede entry into the same positions (barriers).

As a result of data collection and analysis activities outlined above, subsequent major tasks were to develop strategies for increasing entry into highway maintenance positions, as well as to identify pilot test sites for implementing selected strategies, and a method of assessing impacts. The following chapters describe in detail each of the major tasks undertaken in this research project.

2/ Survey Data Analysis

2.1/ Female Job Seekers

A total of 60 interviews were conducted at five federal employment centres across the province of Ontario (with twelve interviews being completed at one office in each of the selected sites - Toronto, Belleville, London, North Bay and Thunder Bay). Sites were selected from each of the five MTO regions across the province.

Approval was obtained from four different Canada Employment Centres to conduct short interviews with female job-seekers who would broadly be interested in blue-collar type employment. For Toronto, interviews were conducted at the Women's Employment Counselling Centre which specializes in counselling and placing women in non-traditional (especially blue-collar) occupations. Personnel at each of the centres were very cooperative and helpful in providing temporary office space for conducting the interviews, as well as scheduling some of the interviews with job-seekers.

Table 1 below presents a basic socio-demographic profile of respondents from each of the five interview sites. Most of the job-seekers fall within the younger age brackets (with sixty percent of the total sample being 30 years or younger). There is some variation by site as seen in Table 1. With respect to marital status, over a third of the total sample (38 percent) is single, with another third being married or living common-law (35 percent). A higher proportion of Toronto and London respondents are single, while more Belleville respondents are separated, widowed or divorced. Approximately one-third of the total sample of job-seekers have pre-school or school-aged children, with some variation by interview site.

Of the twenty-one job-seekers who are married/living common-law, sixteen have spouses who are employed. All but one of the spouses is employed on a full-time basis. Three are employed in professional jobs, two in white-collar, and eleven in blue-collar occupations. Spouses' employment status (specifically, whether the spouse was employed in a blue-collar occupation) did not have an effect upon female job-seekers' awareness of prospects in the highway maintenance field, whether they had applied for such jobs in past, or whether they would be willing to apply for such jobs now.

A significant proportion of respondents have some form of education beyond high school. A small number (5 job-seekers) have at least some trade or vocational training, with larger numbers having some community college (16 respondents) or university training (9 of the total sample). However, it must also be noted that a slight majority (52 percent of the total sample) had not completed high school. Again, there is variation by interview site with respondents from Toronto and Belleville having higher proportions with some form of post-secondary education relative to the other sites.

Table 2 provides an employment profile of female job-seekers along with their perceptions about jobs in the highway maintenance field (the main focus of the survey). A majority of job-seekers (60 percent) have been looking for employment for three months or less (with minor variation by interview site). At the other extreme, a relatively small number of job-seekers (8 from the total sample) have been looking for work for 12 months or longer, with two of these respondents searching for longer than two years. Approximately half of all job-seekers (48 percent) have worked for less than five years in total (consistent with the rather young age distributions noted earlier). However, there is a full range in employment experience, with 21 job-seekers (35 percent) having ten years or more, and 7 respondents (12 percent of the full sample) having twenty or more years' experience in the work force. One finds some variation by interview site, with Thunder Bay and Belleville respondents tending to have more work experience.

Job-seekers were asked to specify the last job they held; these occupations were then regrouped as "blue-collar" (including occupations in processing, machining, fabrication, assembly and repair, construction, transportation equipment operation, and material handling) and "other" for analysis. Fourteen respondents in total (23 percent) reported a prior job which was reclassified as blue-collar (with minor variations in the proportions across interview sites). Eight of the sixty (13 percent) did not report a previous job, suggesting that they would be labour market entrants (probably just having completed school). Job-seekers were also asked to identify their first and second job preferences which were regrouped in the same way. A comparable proportion (28 percent) of all job-seekers indicated a blue-collar occupation as their first preference, with a much smaller proportion (12 percent) specifying blue-collar as second preference. In total, nineteen job-seekers (32 percent of the total sample) specified a blue-collar occupation as either their first or second preference for employment. Again, there is some variation by interview site, with a much higher proportion of Toronto respondents expressing interest in blue-collar employment. This is attributable to the fact that Toronto interviews were conducted at a site which specializes in counselling and placing women in non-traditional (especially blue-collar) occupations. Not surprisingly, the vast majority of all job-seekers (56 respondents or 93 percent) were interested in full-time, permanent employment. The remaining four job-seekers were pursuing part-time employment (permanent or temporary).

With respect to the perceptions of female job-seekers towards occupations in the highway maintenance field, Table 2 provides some of the initial distributions for the key dependent variables in the analysis - awareness of opportunities in the field, previous applicants to the field and, most importantly, the percentage of job-seekers willing to apply for jobs in this field at present. Approximately half (53 percent) of all respondents were aware of job opportunities in the highway maintenance field prior to the interview (in which the occupations were described in some detail). Again, there is minor variation by interview site, with two-thirds of Toronto job-seekers being aware of such opportunities (consistent with the type of employment services provided at the Toronto Women's Employment Counselling Centre). Job-seekers were also asked about their level of knowledge about jobs in the highway maintenance field. Only eight respondents (13 percent) indicated they had a lot of knowledge about the jobs, with another quarter of the sample indicating some knowledge, and just under a quarter (23 percent) specifying little prior knowledge about the jobs. Hence, less than two in five job-seekers indicated they had any more than a little (minimal) knowledge about these jobs. A number of job-seekers noted in comments that they hadn't seen jobs in this field advertised anywhere. In the words of one Toronto respondent:

"I'd like to know why I've never seen any of these jobs advertised. I've never seen them at the employment centre, on the boards. Never! ... I don't know how to go about applying."

A total of twenty-one respondents (35 percent of the total sample) have applied for at least one job in the highway maintenance field in the past. However, there is considerable variation by interview site, with a majority of Toronto job-seekers applying, compared to rather low proportions of job-seekers from London and North Bay. Of those who had applied in the past, ten job-seekers applied for only one job, seven applied for two jobs, with a range up to two respondents having applied for eight or more jobs in the field. Twelve respondents had received job offers in the highway maintenance field, with eleven accepting jobs in trades (two cases), as road crew members (three cases), and in other highway maintenance classifications (remaining six respondents). When asked for a reason for leaving their job in the field, five of eleven respondents indicated that the work had ended (in effect, being laid off), with the remaining respondents stating a variety of other reasons for leaving. The average tenure of highway maintenance jobs for these respondents was less than one year (less than six months for six of the eleven respondents).

The key dependent variable was obtained by asking respondents if (on the basis of the information they had received about jobs in the field - both prior knowledge and from the interviewer) they would be willing to apply for a job in this field. Responses were dichotomized into those who expressed willingness (38 cases or 63 percent of the sample) and those who did not (the remaining 22 respondents, including 12 residual responses of "don't know" or "unsure"). Again, one finds variation in the response by interview site, with job-seekers in Belleville, North Bay and Thunder Bay being more willing to apply than those in Toronto and London.

This information was supplemented by asking job-seekers which jobs in particular they would be willing to apply for within the highway maintenance field. Overall, the proportions willing were 20 percent (for electrician's job), 18 percent (mechanic), 28 percent (machinist), 25 percent (carpenter), 43 percent (heavy equipment operator), 52 percent (road crew member), and 47 percent (radio operator/dispatcher). Many of the female job-seekers were enthusiastic about employment prospects in the highway maintenance field, as reflected in their additional comments. As expressed by one North Bay respondent:

"Where do we get applications for this? ... [These jobs] would be great. I'm definitely interested."

Again, there is distinct variation by interview site in the types of jobs of interest to job-seekers. A higher proportion of Toronto job-seekers are interested in machinist jobs relative to other sites, while Belleville job-seekers expressed more interest in equipment operator, road crew member and radio operator/dispatcher positions. Job-seekers in North Bay expressed more interest in just about all highway maintenance jobs; this may in part be a reflection of a more difficult labour market (with higher rates of prolonged unemployment) for the Northern Ontario region.

Those job-seekers who indicated that they were not willing to apply for any job in the highway maintenance field were asked to specify their reasons for not applying. Thirteen respondents (22 percent of the total sample) simply indicated they had other job interests, while a small number of job-seekers (only four) indicated they lacked the necessary education or skills to apply for any of the jobs. Two job-seekers cited age as a factor, stating that they believed they were too old for the types of jobs available in the highway maintenance field. A variety of negative perceptions were expressed with respect to these jobs. A sample of comments from different respondents are provided to illustrate negative perceptions:

"Women often feel they're not going to have a chance anyways. Even for the traditional jobs, its difficult now. It's easier to take a traditional woman's job. They're advertised more, they're more available. You feel you have more of a chance with them."

"If they can get a man first, they'll take him. They don't seem to think you can do the physical work that's required."

"I have yet to see a woman driving heavy equipment on the roads. ... They're not serious - women are only decorative ... I've only seen flaggers."

"I don't want to have to prove anything. I just want to work, do my job. ... More is expected from a woman. You have to make a good example - to justify the company's employing women."

Job-seekers were also asked whether male-dominance in the highway maintenance field would affect their decision of whether to apply for these jobs. The vast majority (56 respondents or 93 percent) indicated that this would have no effect on their decision, with the remaining four job-seekers suggesting it would have a positive effect (particularly in providing a more challenging job situation). As expressed by one Toronto job-seeker:

"It's like pioneering. A lot more challenge. ... It could be unpleasant, though this wouldn't affect my willingness [to work there] - only [the worker] must be prepared for it."

Table 3 presents subjective perceptions of job-seekers (total sample) on a list of possible job advantages and disadvantages for jobs in the highway maintenance field (first two columns) and any kind of job (latter two columns). Respondents were asked to rank the top five advantages and disadvantages associated with jobs in the field, and jobs generally. The table provides percentages of job-seekers ranking each factor as first or second most important (as an advantage or disadvantage).

Beginning with job advantages, there are some distinctions between the perceptions of highway maintenance jobs and jobs in general, although patterns are not as strong as expected. Pay is more likely to be ranked first as an advantage for highway maintenance occupations, as are working outdoors and advancement opportunities as job advantage factors. Fringe benefits and the chance to learn new skills are viewed as significant advantages for both highway maintenance jobs and jobs in general. Combining first and second rank columns together, there are relatively modest differences between perceptions of highway maintenance occupations and jobs in general.

Turning to job disadvantages, there is more clear-cut differentiation between highway maintenance jobs and jobs in general. The principal disadvantages perceived for highway maintenance jobs include high noise levels (ranked either first or second by 28 percent of all job-seekers), risk of injury on the job (28 percent), the seasonal nature of the work (18 percent), and problems getting to and from work (16 percent). By comparison, among all kinds of jobs, principal disadvantages include the pay being too low (43 percent), boring or routine nature of work (18 percent), little chance to learn new skills (18 percent), and little chance of promotion or advancement (15 percent). Respondents were also given the opportunity to add advantages/disadvantages to the provided lists of factors, if they felt there were other salient dimensions. A number of factors were added by single respondents, but only one addition was ranked by more than a couple of job-seekers - "too few women in the field" was ranked as the number one disadvantage of highway maintenance jobs by four job-seekers (7 percent of the total sample).

Generally, the qualitative perception data on job advantage-disadvantage ranking reveals some important differences between jobs in the highway maintenance field and jobs in general. Job-seekers define advantages quite similarly (with a minor exception on the "working outdoors" factor, which is more specific to most highway maintenance occupations). Among the disadvantage factors, job-seekers are more likely to distinguish highway maintenance jobs from jobs in general on the basis of some unique attributes or characteristics associated with the jobs; hence, since highway maintenance jobs tend to involve working with heavy equipment and tend to be seasonal, job-seekers identify high noise levels, risk of injury and the seasonal nature of work as more salient disadvantages, relative to jobs in general (which tend to be evaluated on the basis of monetary return, and the "challenge" associated with the work). This leads to some important differences in the rankings associated with the two job categories as shown in Table 3.

Table 4 presents three key dependent variables (percent aware of prospects in the field, percent having applied in past, and percent now willing to apply for jobs in the field) broken down by specific socio-demographic and employment characteristics. For each of the percentage columns, one can compare the figures to the total sample percentage at the top of the column to determine effect. Beginning with the first indicator (percentage aware of job prospects in this field - before the time of the interview), just over half of all job-seekers had been aware of prospects. One finds clear variation by age with older respondents more likely to indicate awareness of prospects. As well, those job-seekers with some form of post-secondary training (especially university education) are more likely to indicate awareness. Those who have had some community college or university training may have been exposed to the various jobs available in the highway maintenance field (through readings, films or apprenticeships which would be part of their training), and hence be more aware of job prospects in the field.

The second column reveals that just over a third of all job-seekers had applied for a job in the highway maintenance field in the past. Those in the middle age category (25 to 30 years) were more likely to have applied in the past than other age groups. Those job-seekers who are married or living common-law and have pre-school children are less likely to have applied. These age and marital status patterns are largely expected since highway maintenance jobs would be less appealing to those who are married with young (especially pre-school) children, since the jobs would often involve additional time travelling to and from work sites (which also showed up in the previous table under job disadvantage of problems getting to and from work). Again, job-seekers with some form of post-secondary training are more likely to have applied for these types of jobs in the past (consistent with their greater awareness of prospects in the field shown in column 1).

Those job-seekers who have been looking for work for longer than three months are somewhat more likely to have applied for these jobs in the past, as are those with over five years' work experience. Those who have worked in a blue-collar job in the past, or who now prefer to work at a blue-collar job, are far more likely to have applied for a job in this field. This is consistent with the blue-collar nature of jobs in the highway maintenance field.

The key dependent variable (percent willing to apply for jobs in this field now) follows in column 3, with just under two-thirds of all job-seekers expressing willingness to apply for such jobs now. While just over half of all sampled job-seekers had prior knowledge about prospects in this field, and only a third had actually applied for jobs, just under two-thirds (63.5 percent) indicated willingness to apply for jobs in the field now. Hence, it would appear that the interview process itself had an impact through increasing awareness of opportunities in this field - ten percent of all job-seekers had been unaware of prospects in the highway maintenance field, and are now interested in applying for such jobs.

There are some very interesting socio-demographic patterns shown in the last column of the table. Those women in younger age brackets (especially under 25 years of age) are more willing to apply, as are those who are single or without children. These findings are consistent with the characteristics or demands of the jobs themselves: travelling, time commitments and other factors would not be seen as barriers or problems by young, single job-seekers. However, a contradictory finding appears when lone parents (defined as those females who are single, separated or divorced with at least one child at home) are compared to other job-seekers. Of the fourteen lone parents in the sample, all but one (93 percent) indicated a willingness to apply for jobs in the highway maintenance field (compared to 54 percent for all other job-seekers). This is likely a function of the fact that lone parents cannot make adequate wages in traditional female jobs (in clerical or service sectors) to support a family, and hence are more inclined to consider non-traditional blue-collar options which have distinct economic benefits. Those job-seekers with some post-secondary education are somewhat more willing to apply for jobs in this field (though the figure for trade/vocational-trained job-seekers should be interpretted with caution since there are only five respondents in this category).

Those job-seekers who have been looking for work for longer than three months are slightly less willing to apply for jobs in the field, as are those who have been in the labour force for over five years. These patterns are quite modest, however. Surprisingly, those whose last position was a blue-collar job are somewhat less willing to apply for these jobs. There is a clear distinction on the basis of current job preference; those job-seekers whose first job preference is blue-collar employment tend to be very willing to apply for jobs in the highway maintenance field, but those whose second preference is for blue-collar work are far less willing (well below the sample average in fact). This data suggests that those women who are really keen on non-traditional blue-collar employment are a prime target group (in terms of prospective MTO employees in the field), rather than those whose interests in blue-collar work are less clearly defined.

Additionally, job-seekers were asked to rank a series of job search methods in terms of effectiveness in finding jobs. The job search methods probed included applying in person (with no leads - ranked either first or second by 48 percent of the full sample), newspaper ads (42 percent), family or relative contacts (20 percent), friends or other contacts (30 percent), Canada Employment Centres (50 percent), and other employment agencies (7 percent). The perceived effectiveness of Canada Employment Centres in job search activities is likely inflated, due to the fact that all interviews with job-seekers were conducted at federal employment centre offices. Following this method, applying in person and newspaper ads are seen as the most effective means of finding employment by job-seekers. Each of the job search method rankings was crosstabulated with the key dependent variable of willingness to apply for jobs in the highway maintenance field. The only significant pattern was found for the newspaper advertisement method - of the 25 job-seekers who ranked this item first or second, 76 percent were willing to apply for jobs in this field, compared to 54 percent of those who had not ranked this particular method highly.

Hence, from this information, it would appear that one effective way to target potential employees in the highway maintenance field would be through newspaper advertising. An advertising campaign would probably be most effective if targeted towards young, single female job-seekers, with some post-secondary education. Alternatively, if formal education (e.g. high school completion) is not a prerequisite, and on-the-job training programmes have been or will be implemented, this information should be included in an advertising campaign, in order to reduce the perceptual barrier of feeling unprepared for entry into highway maintenance occupations. An advertising campaign could stress advantages of these types of jobs (in particular, the level of pay and fringe benefits which compare favourably to female employment in traditional clerical and services sectors, and also working outdoors, chances to learn new skills, and advancement opportunities if available). Any information which would counteract barriers (reducing or eliminating the perceived disadvantages of jobs in this field, including noise levels, risk of injury, and the seasonal nature of the jobs) would also enhance the effectiveness of an advertising campaign.

2.2/ C.E.C. Counsellors

A total of ten interviews were conducted with Canada Employment Centre counsellors - two from each C.E.C. site selected for conducting interviews with female job-seekers. Again, for the Toronto site, interviews were completed with two counsellors from the Women's Employment Counselling Centre (affiliated with C.E.C.) which specializes in counselling and placing women in non-traditional (especially blue-collar) occupations.

There is considerable variation in the number of female applicants processed at each of the Canada Employment Centres, ranging from 160 per month (on average) for the Toronto centre, to nearly 400 per month at the North Bay C.E.C. office. The proportion of female job-seekers looking specifically for blue-collar employment also differs markedly from centre to centre. Very small proportions (less than ten percent) of female job-seekers passing through the North Bay and Thunder Bay offices are interested in such employment, compared to a very high proportion (between 85 and 90 percent) at the Toronto office (to be expected, given the mandate of this employment centre).

When asked what were some of the common characteristics of women looking for blue-collar jobs, counsellors provided a number of different profile responses including "single mothers" (mentioned by five of the ten counsellors), "lower educational attainments" (three counsellors), "those who are re-entering the labour market" (three counsellors), and "younger - under 35 - job-seekers" (three counsellors). Additional characteristics cited by individual counsellors include "more mobile job-seekers", "those lacking specific skills", and "native women". The general profile constructed from these interviews (with greater proportions of young, less-educated, and lone-parent female job-seekers) is entirely consistent with the profile of surveyed female job-seekers who expressed willingness to apply for jobs in the highway maintenance field, and (to a lesser extent) female MTO employees who were interviewed.

Only four of the ten counsellors indicated that it was possible to differentiate between those female job-seekers with a very clear idea of the type of blue-collar employment they want, versus those who are less clear and directed. Characteristics of those job-seekers with a clearer idea include having more knowledge and experience and being more goal-directed, being more mature, as well as tending to be young and single (each item being identified by a different counsellor). As explained by one counsellor:

"A variety of women would "consider" or say they'd consider blue-collar jobs, but very few are determined to pursue it, and these tend to be more mature."

The remaining six counsellors did not feel it was possible to differentiate. This data suggests that there is no consensus on what (if any) characteristics serve to distinguish these two broad groups of female job-seekers. This is partly a function of the relatively small numbers of female job-seekers interested in blue-collar employment in general. Both counsellors from the Toronto Women's Employment Counselling Centre (which specializes in placing women in blue-collar jobs) felt it was not possible to differentiate: all kinds of women fall into both groups.

When asked what types of blue-collar occupations women are generally interested in, a variety of responses were given including truck driving (such as light delivery) mentioned by four counsellors, woodworking (such as cabinet-making), cited by three counsellors, carpentry (three counsellors), skilled trades or technologists (such as electronics), noted by four counsellors, machining and welding (two counsellors each), general construction and hydro line maintenance (noted once each). There tends to be more interest in higher skill-level blue-collar occupations among female job-seekers (within specific trades), although there is by no means a clustering towards particular job types: women are also interested in lower-skill blue-collar jobs such as truck driver positions. The data suggests that women who are generally interested in blue-collar type employment do not restrict themselves to a small set of occupations.

Counsellors were also asked if there were certain jobs which women were typically not interested in, within the blue-collar field. Responses include those jobs involving high degrees of physical labour (cited by three counsellors), machinist or mechanic trades (identified by three counsellors), plumbing and construction (mentioned by two counsellors each). Other comments include those jobs involving general manual labour, and dirty or odorous work (such as roofing). Again, there is some disagreement in perceptions - occupations identified as high-interest by some counsellors (such as machining) are rated as low-interest by others. These differences, however, are not clearly attributable to regional variations (with occupations perceived differently by job-seekers in different parts of the province). One factor in defining whether a blue-collar job is of high or low interest to female job-seekers may simply be the proportion of women already present in the occupation. As expressed by one of the counsellors:

"It's easier for women to get into industrial trades where there are already some women, but difficult in [trades such as] mechanics, auto body repair and construction."

When asked whether women with a clear idea (of the type of blue-collar work they desire) tend to get jobs in their desired field, the response from counsellors was quite mixed. Only two gave an unqualified "yes", with half of the counsellors saying "no", and the remaining respondents giving an ambiguous answer (unsure, don't know, etc.). In general, it would appear that the success rate of females applying for blue-collar jobs is not very high. This is illustrated by statistics provided by one of the non-local employment counsellors. During the months of July to September 1987, 852 women were "referred" to broadly-defined non-traditional jobs. Of this number, only 44 were actually placed. This data suggests that irrespective of the degree of interest and commitment of female job-seekers towards finding blue-collar employment (even focusing on those with a very clear idea in mind of what type of blue-collar job they want), actual placements tend to be lower than expected.

Counsellors were asked to rank principal advantages and disadvantages for blue-collar jobs in general, and highway maintenance jobs in particular (using the same lists of factors provided to job-seeker and MTO employee respondents). Financial rewards were the most significant advantages in the minds of most counsellors (with pay being ranked first by all ten, and nine of the counsellors, for blue-collar and highway maintenance jobs respectively. Fringe benefits were ranked second by seven and five counsellors for the two types of occupations respectively). The following comments illustrate the perceived importance of financial rewards for female job-seekers according to counsellors:

"... The bottom line is money. Single parents cannot live on traditional female wages, but married women will take lower wages to get regular hours. It's the wages that are going to pull women away from traditional female jobs."

"A major motive is money. They [female job-seekers] have found that they can't live on the money paid in traditional work. They say "I can't live on this wage". Especially single parents who have to support themselves and kids."

Beyond this, the only other job advantage factor which stands out is "working outdoors" which is ranked second by three counsellors in evaluating the highway maintenance jobs. Other factors were not seen as significant advantages of either type of job, as shown in the rankings (as with the other groups of respondents, counsellors were only asked to rank the top five factors for each type of job). Surprisingly, opportunities to learn new skills and use existing skills were not highly ranked as job advantage factors by counsellors (in spite of being perceived more important in the minds of female job-seekers).

Among job disadvantages rankings, counsellors did not tend to differentiate between blue-collar jobs in general, and highway maintenance jobs in particular (which differs from findings for female job-seekers). Working hours and shifts were perceived to be the most significant disadvantage among counsellors (ranked as one of the top five by all responding counsellors for both types of jobs), followed by risk of injury on the job (ranked as one of the top five by half of the counsellors, again for both type of jobs). The seasonal nature of work was ranked first or second by four of the ten counsellors, again for blue-collar jobs generally, and highway maintenance occupations in particular. The physical nature of jobs was ranked more prominently as a disadvantage associated with blue-collar jobs in general (ranked among the top five by six of the ten counsellors), although not for highway maintenance jobs (ranked by only two counsellors). All other job disadvantage factors were ranked by only one or two counsellors.

Counsellors were asked if there were changes which could be made (by themselves, employers or others) which would make blue-collar employment more attractive to women. There was no clear consensus on specific strategies, although several counsellors (three of ten) highlighted the need to break down traditional stereotypes through re-educating employers, recruiters, etc. on the potential role and suitability of women in non-traditional (blue-collar) occupations. These sentiments are illustrated in the following quotations from counsellors:

"... There are still a lot of barriers. It's not that they haven't received education and training. ... Employers are hesitant to take on women. Placement is excellent for men, but women have a hard time."

"Most women (interested in non-trad) have a good, progressive attitude. The problem is how the men treat them. ... There should be a support system for women - have more than one woman working on the same shift or crew."

"The problem for women wanting to work in this area is employer attitudes. While the employer may be willing to give interviews to women, the testing for jobs they are given to do are much harder, and at times do not relate to the actual job, [so] that the women fail or quit after a short period of time."

Other responses to this question of change include improving working conditions (noted by two counsellors), providing more information on training programs (which include trades and technical courses, as well as apprenticeship programs available to job-seekers), using fair and unbiased selection procedures, and having more female role models in advertisements.

When counsellors were asked how many women they have encountered who were actively looking for work in the highway maintenance field, the responses were consistently very low (ranging from zero for most centres, to six for the Toronto Women's Employment Centre). In a follow-up question, it was determined that very low proportions of female job-seekers are aware of (and ask about) opportunities within this specific field. There may be a variety of reasons for this apparent unawareness which may be traced to previous recruitment strategies. The following quotations illustrate counsellors' perceptions of why women have not shown interest in highway maintenance jobs:

"Most people consider it [a job in the highway maintenance field] a desireable and difficult place to get in (for anybody) because it's the government (with security). They don't see a lot of opportunities or turn-over. They think they need to have experience elsewhere first, or contacts to get in."

"They're not visible, especially in Southern Ontario. Women don't see those types of jobs that often. There is not an active recruitment. The pay is good. If women thought they could get in, they'd go."

When asked specifically why women tend to be unaware of job opportunities available within the highway maintenance field, four of the ten counsellors identified a lack of advertising as a major reason. Additional reasons (cited by individual counsellors) include lack of necessary skills, and lack of interest in shift-work requirements among female job-seekers. In one case, the counsellor admitted that she had been unaware of job opportunities in the highway maintenance field.

Finally, when asked for suggestions on ways to reduce or eliminate drawbacks associated with highway maintenance jobs, counsellors provided a full variety of responses. The following set of quotations illustrates the range of suggestions:

"To attract women, advertise as an "equal opportunity employer". ... Send information to women's groups. Train and sensitize staff to treat women as equals."

"Have a better outlook on what women can do. Be more positive. ... Offer training to women."

"Female job-seekers have not thought about blue-collar jobs because they have seen few role models. As well, the educational system does not encourage females to enter the non-traditional classes, such as auto mechanics, electricity or machine shop."

"... More advertising and public exposure of jobs available. Make it public knowledge that you can apply and be considered ... that you won't be screened out. ... Need more knowledge about women that have been hired. I haven't heard any publicity about [MTO] hiring women."

2.3/ Female MTO Employees

A total of sixty interviews were conducted with women currently employed in highway maintenance occupations by the Ministry of Transportation. The names, addresses and phone numbers of all employed women in relevant occupations were furnished by MTO personnel, from which samples were drawn from each of the five MTO regions. A total of 192 names of female employees were provided, which yields a composite sampling fraction of 31.3%. As shown in Table 5 below, there is some variation in the sampling fractions associated with each work site, ranging from just under a quarter for Toronto, to 43 percent for Kingston.

For the purposes of this analysis, respondents from North Bay and London have been grouped together to assure confidentiality since the number of cases in each of the samples is very small. This is a function of the relatively small number of females working in the London region - only seven names were provided by the Ministry - and the fact that it was more difficult to make contact with MTO workers in the North Bay region (due to more off-site field-work in this district during the interviewing period). Percentage comparisons revealed very similar socio-demographic profiles of samples from London and North Bay (examined separately prior to grouping), although there were some important differences in the employment profiles; survey technicians were over-represented in the London sample (there were none from North Bay), while there were several manual workers in the North Bay sample (with none from London). Both samples contained several workers in the weigher/checker occupational group. Additionally, most of the London sample were full-time employees, while most from North Bay were part-time workers.

The age distribution of female MTO employees within highway maintenance and field-worker occupations tends to be quite young, with 43 percent of the entire sample being under 25 years of age. Another quarter of the sample fell between the ages of 25 and 30 years, with the final quarter being between 31 and 49 years old (several respondents did not report an age). One finds some degree of variation by work site, with Toronto employees tending to be younger on average. The relatively youthful age structure among sampled respondents is expected, given the types of occupations these respondents are found in (which tend to be more physically demanding, and hence better-suited to younger women). The age profile of MTO workers is quite similar to that for the sample of female job-seekers described above.

Overall, just under half (47 percent) of the total sample is single, with another two in five respondents being married or living common-law. Again, there is some variation by work site, as shown in Table 5. Of the 24 respondents who were married or living common-law, all but four had spouses who were employed, and all but one of the employed spouses were working full-time. There was a full range of spouses' occupations ranging from professional (three spouses) to service occupations (three), to construction workers (four spouses). A small number of MTO employees (twelve percent) were separated or divorced.

In total, forty percent of the sampled employees had at least one child living at home (with lower proportions of respondents in Toronto and Kingston having children, compared to the other work sites). These work site patterns were consistent when broken down for pre-school and school-aged children, although very few of the Toronto and Kingston women have pre-school children, compared to the other samples. It would appear that having children at home is not a significant barrier to employment within highway maintenance occupations. However, it warrants mentioning that only five of the entire sample (eight percent) were lone parents (defined as being single, separated or divorced and having at least one child at home). Further, all five of the lone parents in the sample had school-aged children only. This evidence suggests that it may not presently be possible for lone parents with pre-school children to hold jobs in the highway maintenance field, due to hours, shifts and other job-related factors. This would appear to be inconsistent with the perceptions and expectations of female job-seekers, recalling the very high proportion of lone parents from that sample (with nine of the fourteen lone-parent job-seekers having at least one pre-school child at home) who were willing to apply for jobs in the highway maintenance field.

With respect to the education of sampled employees, it is important to note that the vast majority (75 percent) had completed at least Grade 12 (assumed equivalent of high school completion for other than university preparatory programmes). This proportion for sampled MTO employees is much higher than that found for interviewed female job-seekers (with less than half having completed high school). Only two of the sixty employees had some trade or vocational training, while 17 percent had at least some community college training, and 18 percent had at least some university education. Again, as shown in Table 5, there is some variation by work site, with just under a third of Toronto employees having at least some university training, compared to much lower proportions of the other work site samples. A total of twelve respondents (20 percent of the full sample) are student workers (all indicating they were full-time students), with the highest proportion of such workers being found in the Toronto sample (followed closely by the Kingston sample).

Table 6 provides an employment profile for employees, broken down by major work site (again with London and North Bay samples grouped together). With respect to present occupation, 21 respondents (35 percent of the entire sample) indicated they were weighers or checkers (which would best be described as clerical support occupations within the highway maintenance field; these are workers who weigh loads and check tickets for truck drivers in transit to work sites). This occupational group is followed in size by survey technicians (11 employees or 18 percent overall), manual workers (10 workers, 17 percent), and general road crew (9 workers, 15 percent). The remaining MTO occupation groups (including equipment operators, other operations such as flaggers, and residual occupational groups such as ferry mates and deck hands) accounted for the remaining nine employees (15 percent of the total). As described, the female employees who were interviewed, were involved mainly in field-work activities related to highway maintenance and similar operations. No female staff employed in trade occupations (such as electrician, machinist, etc.) were interviewed. Skilled trades would probably be the most desireable and difficult (given limits on entry to only those with completed training and credentials) occupations in the highway maintenance field for females to enter.

There is considerable variation in the occupational distribution by specific work site: Toronto has a higher proportion of general road crew workers (78 percent of all road crew workers in the sample were in the Toronto district), weighers and checkers were over-represented in Kingston, London and North Bay samples, and other (residual) MTO occupations were only found in Toronto and Kingston samples. Again, given the magnitude of the work site sampling fractions, these differences are probably representative of differences in the working population for female MTO employees, reflective of differing service needs in each region. For instance, ferry mates and deck hands as residual MTO occupational groups were found only in the Kingston region, consistent with the needs of the area (MTO would likely maintain a number of waterway services in the Kingston and the Islands area).

Just under two-thirds (62 percent) of the total sample is employed full-time within the highway maintenance field, with the remainder (38 percent) employed on a part-time basis. However, all but six of the sampled respondents were employed on a temporary or seasonal basis. As expressed by one seasonal worker respondent:

"I'd work there year-round, if they had it. I really enjoy the work."

Again, there are some variations by work site, with a much higher proportion of Toronto employees being employed on a full-time basis (also with a modestly higher proportion being employed in permanent positions), compared to the other work sites. The seasonal or temporary nature of MTO jobs is also evident from the job tenure breakdown: overall, a third of all sampled workers had been employed for four months or less, with another forty percent employed over four months up to two years. This leaves a relatively small group (17 percent) employed with MTO for longer than two years. Again, there are minor variations in the job tenure distributions by work site, with Toronto workers tending to be employed slightly longer on average, while Kingston and North Bay workers tend to have shorter employment histories with the Ministry.

With respect to how female workers originally found out about their MTO jobs (the key source of their information), a majority (55 percent) of the full sample learned about the jobs through contacts, either family or relatives (18 percent), or other personal contacts (37 percent). As expressed by one respondent:

"Lots of women don't know they can get work there. You have to know somebody who's already there. ... You have to have connections. If nobody talks for you there (or if you don't have somebody there), you won't get in."

Smaller proportions found out about MTO jobs through MTO competition ads (12 percent) and through Canada Employment Centres (8 percent). No other job search mechanism (newspaper ads, employment agency or other) was widely used as a source of information on jobs by sampled employees (each of the other methods was only reported by one or two individual workers). Clearly, personal contacts were tremendously important in the transmission of information about MTO job opportunities for those females now in the highway maintenance field. There are minor variations in how MTO jobs were found by work site; Canada Employment Centres played only a small role in providing information in Toronto and Kingston areas.

Table 7 profiles perceived advantages and disadvantages associated with jobs in the highway maintenance field. Additionally, female employees were asked to rank the major reasons for taking their present MTO job, using the same list of potential job advantages. Beginning with reasons for taking MTO jobs, pay is clearly a dominant reason (ranked first or second by over half – 55 percent – of the entire sample). This factor is followed closely by "working outdoors", which was also ranked either first or second by half of the respondents. Beyond these two job characteristics, no other factor was highly ranked by a significant proportion of the sample. These general findings are largely expected; MTO jobs do offer high wages, compared with traditional female employment in clerical and service sectors, and working outdoors (a fundamental characteristic of most of the jobs in the highway maintenance field) would be viewed positively by those applying for these types of jobs. (This attribute serves to distinguish the MTO jobs from most female employment opportunities.)

When asked to rank the top five advantages of highway maintenance jobs in general (not necessarily those which initially attracted respondents to the jobs in the first place) pay and working outdoors were again ranked very highly by sampled respondents (ranked first or second by 48 percent and 35 percent of the total sample respectively). While these are clearly the two dominant job advantage factors, other factors were also ranked, including a chance to learn new skills (ranked first or second by 15 percent of the total sample), a chance to work overtime (11 percent), advancement opportunities (11 percent), and working as part of a small group or team (10 percent).

With respect to perceived disadvantages of jobs in the highway maintenance field, no single factor was dominant. Rather, a series of disadvantage items were ranked first or second by relatively small proportions of employees, including risk of injury on the job (22 percent), high noise levels (15 percent), little chance of promotion or advancement (13 percent, which contradicts the 11 percent perceiving advancement opportunities as a job advantage), dirty or dusty workplace or job site (10 percent), and working hours or shifts (10 percent). The rankings of advantages and disadvantages of jobs in this field are generally consistent with findings for sampled female job-seekers discussed above, with minor variations. Job-seekers rank the seasonal nature of the work, and problems getting to and from work more highly as job disadvantages, relative to MTO employees. Further, female job-seekers accord higher rankings to the advantage factors of a chance to learn new skills and of advancement opportunities than do MTO workers.

Tables 8 and 9 provide breakdowns for key socio-demographic and employment variables on two important independent variables: percent expressing overall satisfaction with their MTO jobs (using the upper two categories from a standard five-point Likert scale ranging from "not at all satisfied" to "completely satisfied"), and percent who would recommend highway maintenance jobs to other females (workers who responded "unsure" or "don't know" were grouped as non-recommenders). For the entire sample, three-quarters of the employees responded positively to each of these two items, indicating a high-level of satisfaction with highway maintenance jobs in general. However, these general patterns mask internal variation found for specific components of job satisfaction. For instance, MTO employees were generally far less satisfied with factors such as fringe benefits (only 37 percent reporting satisfaction), job security (37 percent), and chance to use existing skills (48 percent). Some employee comments are provided below to illustrate the types of dissatisfactions:

[re: job security] "You can be on contract for years, without being hired".

"If you're full-time within the Ministry, there is opportunity for advancement, but not for seasonal, contract or unclassified workers. ... I would like more advancement. A chance to use my brains."

On the other hand, workers tended to be most satisfied with dimensions of working hours or shifts (88 percent), relationships with co-workers (87 percent), and relationships with supervisors (85 percent). In general, there is a fair correlation between overall satisfaction and willingness to recommend jobs in the highway maintenance field to others. Of those respondents who are satisfied (47 cases) 79 percent would recommend jobs to others, compared to 62 percent recommending among those who are not satisfied with their jobs overall.

There are clear variations in the level of satisfaction (expressed in both dependent variables) when broken down by socio-demographic and employment characteristics. From Table 8, there are greater percentages of positive responses for Kingston, London and North Bay work districts (which is partly a function of differing occupational distributions discussed earlier and profiled below). The youngest MTO employees (those under 25 years of age) express highest levels of satisfaction, although there are no significant differences by age in the proportions recommending highway maintenance jobs to other females. The higher satisfaction levels among younger workers is largely expected, given the basic characteristics of the jobs (being outdoors and more physical in nature - features which would be more attractive to young employees).

Single workers appear to be more satisfied on average, though somewhat less likely to recommend these jobs to others, while the opposite pattern holds true for married/common-law employees. Those workers without any children living at home tend to be more satisfied, but when looking at percent recommending jobs, those with pre-school children (only 12 cases) appear far more likely to recommend to other women, relative to those with school-aged children, or those without any children. These patterns (except for those evident for the singles, who tend to be younger employees) are unexpected and difficult to interpret.

With respect to educational attainments, those with at least some community college training appear more satisfied with their jobs, though less likely to recommend jobs in the field to other women (somewhat unexpected), and those with some university training (only nine respondents) are far less satisfied on average, and also less likely to recommend their jobs (expected, since those with university training would most likely be interested in finding employment in their own study field or specialization). Student workers, however, do not differ from the overall averages on each of these dependent variables (possibly because they only define highway maintenance jobs in terms of providing economic advantages, necessary to completing their education).

The most dramatic variations in percentages satisfied and recommending jobs are shown in the occupational breakdowns contained in Table 9. The largest single occupational category of weighers and checkers are evidently the most satisfied, and most likely to recommend highway maintenance jobs to other females, relative to all other occupational groups. At the other extreme, road crew workers tend to be less satisfied with their work overall, and less likely to recommend jobs in the field to other females. It would appear that the more traditionally-defined male-dominated occupational groups (such as road crew members) are less satisfying to female participants. This may simply be a function of the fact that women in these jobs feel more isolated, especially if serving as the only female on a male-dominated crew. As shown in Table 7, several female workers added to the list of job disadvantages factors of "working with a team of men" (7 percent) and "too few women in the field" (7 percent). Had these items been included in the original list of job disadvantages, rankings may have been higher in general. Some worker comments are given below to illustrate the types of problems perceived:

"I was the only woman so it was really hard. They [the men] didn't hassle me, but emotionally, I felt out of place. ... It's difficult to be the only one."

"The first season, I was the only woman. It was difficult for them and for me. They wanted to watch their language, but it didn't bother me. ... I had to be assertive, almost cold. I couldn't let them get away with things because of the situation (would get worse). ... The second season, there was another woman and that worked out better."

Certain job satisfaction items show more occupational variation than others (illustrating the problems associated with focusing analysis upon a global or overall job satisfaction variable). For instance, when examining satisfaction with working hours or shifts, there is nearly complete satisfaction (97 percent) among all occupational groups, except for weighers and checkers (71 percent expressing satisfaction). There is considerably more variation found across occupational groups when looking at satisfaction with chances to use existing skills. At one extreme, only one of nine (11 percent) road crew workers expressed satisfaction on this item, compared to 91 percent of survey technicians in the sample. Other group percentages were 33 percent for weighers/checkers, 70 percent for manual workers, and 44 percent for other MTO occupations.

Part-time workers tend to be more satisfied, and more willing to recommend jobs in the field to other females, relative to full-time employees. Similarly, those who are temporary or seasonal tend to be more satisfied with their work, relative to permanent MTO employees. Consistent with these patterns for part-timers and seasonal workers, those who have worked for MTO the least amount of time (less than four months) have the highest levels of satisfaction, and are somewhat more willing to recommend jobs in the field to others. Finally, those who actually found their jobs at MTO through family or relative contacts tended to be very satisfied, and were the most likely (of all groups in the analysis) to recommend jobs in the highway maintenance field to other women. Of those workers reporting that their job contact (family, relative or other) works for MTO (31 respondents) 81 percent indicated willingness to recommend jobs in the field.

2.4/ Competitive Employers

In addition to other groups sampled, five exploratory interviews were conducted with competitive employers (competitive in the sense that these organizations would potentially employ women in non-traditional blue-collar type occupations, and hence would be viewed as competitive from the Ministry's vantage of increasing representation of women within the highway maintenance field). These competitive employers include two municipal public works departments, a large private-sector industrial concern, and two small paving/construction companies. These represent the mix of potential competitive employers of women in non-traditional blue collar (maintenance-type) occupations.

There is considerable variation in the size of operations of these five competitive employers, ranging from under fifty to over a thousand blue-collar employees. When asked what proportion of blue-collar workers were women, responses were consistently very low (two percent or less in each case). Similar responses were given when employers were asked what proportion of their employees within "maintenance-type" occupations (comparable to those within MTO) were female. Where there were comparable maintenance occupations, reportedly less than one percent were filled by women.

A variety of employee recruitment strategies were practised by this group of competitive employers, including conventional advertising, direct recruitment through schools, colleges and universities, and (in the case of one employer) a passive strategy of simply relying upon those who apply in person (with no active recruitment on the part of the organization). Only one of the competitive employers indicated special recruitment targeted towards women, through advertisement at the Women's Employment Centre in Toronto.

When asked specifically about job applicants over the past year, employers indicated that very few women (two percent or less) applied for blue-collar jobs. Two of the employers stated that women simply are not interested in these types of jobs, while other employers identified specific types of occupations which women generally are not interested in (including sewer work, manual work, jobs which involve working on all-male crews). With respect to actual hirings in the past year, only one of the interviewed competitive employers reported hiring any women in blue collar occupations (employed as machine operators and labourers – this is the only employer which reported actively recruiting women for blue-collar jobs).

Competitive employers were also asked to rank the five most important advantages and disadvantages associated with highway maintenance and blue-collar jobs in general. Those interviewed did not appear to differentiate between the two types of jobs, but rather viewed them as the same. With respect to job advantages in the blue-collar/highway maintenance field, pay was consistently ranked first (as fully expected; this finding is consistent with other survey sample results). Other factors ranked as advantages include being able to work outdoors (ranked by two employers), fringe benefits, the physical nature of the work, the chance to learn new skills, working as part of a small group or team, and opportunity to work overtime (each ranked by one of the interviewed employers). With respect to job disadvantage factors, the physical nature of the work was ranked by four employers, followed by dirty or dusty workplace or job site (ranked by three), working hours or shifts, seasonal nature of work, and attitudes of men (ranked by two employers each). There appears to be more variability in the perceptions of disadvantages among interviewed employers, relative to other sampled groups (female job-seekers and MTO employees).

When asked if they felt there were changes which could be made (by themselves or others) which would make blue-collar work in general more attractive to female job-seekers, competitive employers provided a number of different suggestions, ranging from passive (with one employer stating that women should take the initiative to apply for such jobs), to more direct strategies, such as direct recruitment (letting women know in advertising campaigns that they are encouraged to apply for blue-collar jobs within an organization). One of the employers noted that union-management collective agreements, as well as corporate hiring policies, are barriers which tend to restrict the entry of women into male-dominated operational jobs. Two of the interviewed employers noted the importance of changing male attitudes (male workers already in blue-collar jobs should be trained to be more receptive towards females in the field). One employer commented on the need to hire women in groups or teams, rather than individually, to help avoid the sense of isolation and potential harassment associated with being "the only woman in the work group".

The analysis of competitive employer interviews (clearly limited by the small number of interviews conducted) suggests that there is very little interest in female blue-collar employment, either from employers or job-seekers. From the perspective of female job-seekers, there does not appear to be a clear message that applications for blue collar jobs from women are welcome or encouraged (with the exception of one of the organizations included in the interview sample). From the vantage of the Ministry, it would appear that certain types of female job-seekers are indeed interested in blue-collar jobs in general, and highway maintenance jobs in particular (as seen in the results from the job-seeker survey), and there is very little direct "competition" for such job-seekers (assuming "competitive employers" interviewed for this study are representative of the general population of potential employers of blue-collar females). Hence, with a targeted recruitment strategy (involving direct advertising, highlighting the role women can play in the highway maintenance field), the Ministry should be able to attract and place female job-seekers, thereby enhancing female representation in the highway maintenance field.

TABLE 1

FEMALE JOB-SEEKERS AT C.E.C. OFFICES

SOCIO-DEMOGRAPHIC PROFILE

Variable	Toronto	Belle-ville	London	North Bay	Thunder Bay	Total Sample
AGE OF JOB-SEEKERS						
% Under 25 Years	41.7%	41.7%	27.3%	33.3%	16.7%	31.7%
% 25 to 30 Years	8.3	8.3	36.4	41.7	41.7	26.7
% Over 30 Years	50.0	50.0	36.4	25.0	41.7	40.0
FAMILY STATUS OF JOB-SEEKERS						
% Single	58.3	16.7	50.0	33.3	33.3	38.3
% Married or Common-Law	25.0	33.3	41.7	33.3	41.7	35.0
% with Pre-School Children	41.7	41.7	25.0	41.7	25.0	35.0
% with School-Age Children	16.7	33.3	41.7	41.7	33.3	33.3
EDUCATIONAL ATTAINMENTS						
% with Trade/Voc. Training	16.7	8.3	0.0	16.7	0.0	8.8
% with Some Comm. College	50.0	33.3	16.7	25.0	8.3	26.7
% with Some Univ. Education	16.7	16.7	33.3	8.3	0.0	15.0
NUMBER OF CASES	12	12	12	12	12	60

TABLE 2

FEMALE JOB-SEEKERS AT C.E.C. OFFICES

EMPLOYMENT PROFILE

Variable	Toronto	Belle-ville	London	North Bay	Thunder Bay	Total Sample
EMPLOYMENT VARIABLES						
% Look for Work G.T. 3 Mths.	41.7%	41.7%	41.7%	41.7%	33.3%	40.0%
% in Lab. Force G.T. 5 Years	50.0	58.3	41.7	25.0	83.3	51.7
% Last Job was Blue Collar Job	33.3	16.7	25.0	25.0	16.7	23.3
% 1st Pref. is Blue Col. Job	41.7	25.0	16.7	33.3	25.0	43.3
% 2nd Pref. is Blue Col. Job	25.0	8.3	8.3	8.3	8.3	11.7
HIGHWAY MAINTENANCE EMPLOYMENT						
% Aware Opportunity in Field	66.7	50.0	58.3	50.0	41.7	53.3
% Who Prev. Applied in Field	58.7	50.0	8.3	16.7	41.7	35.0
% Willing to Apply Now	50.0	75.0	50.0	75.0	66.7	63.3
% Willing to Apply for Job as:						
Electrician	8.3	25.0	8.3	33.3	25.0	20.0
Mechanic	8.3	0.0	16.7	50.0	16.7	18.3
Machinist	41.7	33.3	16.7	33.3	16.7	28.3
Carpenter	8.3	16.7	8.3	58.3	33.3	25.0
Heavy Equipment Operator	8.3	66.7	33.3	66.7	41.7	43.3
Road Crew Worker	16.7	66.7	33.3	91.7	50.0	51.7
Radio Operator	16.7	66.7	41.7	66.7	41.7	46.7
NUMBER OF CASES	12	12	12	12	12	60

TABLE 3

PERCEIVED JOB ADVANTAGES/DISADVANTAGES
PERCENT RANKED FIRST OR SECOND

Job Factor	Highway Maintenance Jobs First Rank	Highway Maintenance Jobs Second Rank	Any Type of Job First Rank	Any Type of Job Second Rank
JOB ADVANTAGES				
Pay	41.7%	13.3%	35.0%	18.3%
Chance to Learn New Skills	21.7	20.0	21.7	10.0
Advancement Opportunities	18.3	5.0	10.0	3.3
Fringe Benefits	10.0	26.7	11.7	26.7
Working Outdoors	8.3	3.3	1.7	5.0
Chance to Use Existing Skills/Training	5.0	6.7	5.0	8.3
Physical Nature of the Work	1.7	6.7	0.0	5.0
Working as Part of a Small Group or Team	1.7	6.7	1.7	3.3
Working Hours or Shifts	1.7	1.7	1.7	5.0
JOB DISADVANTAGES				
Risk of Injury on the Job	15.0	13.3	5.0	11.7
High Noise Levels	13.3	15.0	8.3	5.0
Seasonal Nature of the Work	11.7	6.7	1.7	6.7
Problems Getting to and from Work	8.3	8.3	3.3	5.0
Physical Nature of the Work	6.7	0.0	1.7	1.7
Working for a Male Foreman	6.7	0.0	0.0	0.0
Boring or Routine Nature of Job	5.0	6.7	11.7	6.7
Little Chance of Promotion/Advancement	3.3	6.7	3.3	11.7
Dirty or Dusty Workplace or Job Site	1.7	5.0	0.0	0.0
Working Hours or Shifts	1.7	5.0	1.7	8.3
Overtime Demands	1.7	3.3	0.0	5.0
Having to Work Outdoors	1.7	3.3	1.7	0.0
Having to Work Indoors	1.7	3.3	3.3	0.0
Pay Too Low	1.7	1.7	36.7	6.7
Little Chance to Use Existing Skills	1.7	0.0	1.7	3.3
Little Chance to Learn New Skills	0.0	5.0	8.3	10.0

TABLE 4

AWARENESS OF / INTEREST IN HIGHWAY MAINTENANCE OCCUPATIONS

BY SOCIO-DEMOGRAPHIC CHARACTERISTICS

Variable	Number of Cases	Percent Aware of Prospects	Percent Applied in Past	Percent Willing to Apply Now
TOTAL SAMPLE	(60)	53.3	35.0%	63.3%
AGE OF JOB-SEEKERS				
Under 25 Years	(20)	40.0	30.0	75.0
25 to 30 Years	(16)	56.3	43.8	68.8
Over 30 Years	(24)	62.5	33.3	50.0
FAMILY STATUS OF JOB-SEEKERS				
Single	(23)	52.2	30.4	65.2
Married or Common-Law	(21)	52.4	23.8	42.9
With Pre-School Children	(21)	52.4	28.6	57.1
With School-Age Children	(20)	65.0	35.0	50.0
Lone Parent	(14)	57.1	50.0	92.9
EDUCATIONAL ATTAINMENTS				
With Trade/Vocational Training	(5)	60.0	40.0	80.0
With Some Community College	(16)	56.3	43.8	68.8
With Some University Education	(9)	66.7	55.6	66.7
EMPLOYMENT VARIABLES				
Looking for Work more than 3 Mths.	(24)	50.0	41.7	58.3
In Labour Force more than 5 Years	(31)	54.8	38.7	61.3
Last Job was a Blue Collar Job	(12)	41.7	50.0	58.3
1st Preference is Blue Collar Job	(17)	41.2	52.9	76.5
2nd Preference is Blue Collar Job	(7)	71.4	42.8	42.9

TABLE 5

FEMALE M.T.O. EMPLOYEES

SOCIO-DEMOGRAPHIC PROFILE

Variable	Toronto	Kingston	Thunder Bay	North Bay & London *	Total Sample
AGE OF EMPLOYEE					
% Under 25 Years	60.0%	58.3%	29.4%	41.7%	43.3%
% 25 to 30 Years	13.3	8.3	52.9	25.0	25.0
% Over 30 Years	26.7	33.3	17.6	33.3	25.0
FAMILY STATUS OF EMPLOYEE					
% Single	58.8	41.7	38.9	46.2	46.7
% Married or Common-Law	23.5	33.3	61.1	38.5	40.0
% with Pre-School Children	5.9	8.3	27.8	38.5	20.0
% with School-Age Children	23.5	25.0	38.9	30.8	30.0
EDUCATIONAL PROFILE					
% with Some Comm. College	17.6	8.3	22.2	15.4	16.7
% with Some Univ. Training	29.4	16.7	5.6	7.7	15.0
% Student Employees	29.4	25.0	16.7	7.7	20.0
NUMBER OF CASES	17	12	18	13*	60
TOTAL FEMALE MTO EMPLOYEES **	69	28	55	40	192
DERIVED SAMPLING FRACTION	24.6%	42.9%	32.7%	32.5%	31.3%

* : London (5 cases) and North Bay (8 cases) respondents grouped together due to small sample sizes.

** : Estimated from staff lists provided by M.T.O.

TABLE 6

FEMALE M.T.O. EMPLOYEES

EMPLOYMENT PROFILE

Variable	Toronto	Kingston	Thunder Bay	North Bay & London *	Total Sample
PRESENT OCCUPATION					
% Weigher, Checker	11.8%	50.0%	33.3%	53.8%	35.0%
% Survey Technician	5.9	8.3	23.1	33.3	18.3
% General Road Crew	41.2	8.3	0.0	5.6	15.0
% Manual Worker	11.8	0.0	23.1	27.8	16.7
% Other MTO Occupations	29.4	33.4	0.0	0.0	15.0
OCCUPATIONAL STATUS					
% Full-Time	88.2	58.3	55.6	38.5	61.7
% Part-Time	11.8	41.7	44.4	61.5	38.3
% Permanent	17.6	8.3	11.1	0.0	10.0
% Temporary/Seasonal	82.4	91.7	88.9	100.0	90.0
LENGTH OF EMPLOYMENT					
% Less Than 4 Months	23.5	41.7	33.3	38.5	33.3
% 4 Months to 2 Years	29.4	25.0	33.3	30.8	40.0
% Over 2 Years	35.3	25.0	27.8	15.4	26.7
HOW MTO JOB FOUND					
% Family, Rel. Contact	17.6	25.0	11.1	23.1	18.3
% Other Personal Contact	35.3	41.7	38.9	30.8	36.7
% MTO Competition Ad	17.6	8.3	5.6	15.4	11.7
% Through C.E.C.	11.8	16.7	5.	0.0	8.3
NUMBER OF CASES	17	12	18	13*	60

* : London (5 cases) and North Bay (8 cases) respondents grouped together due to small sample sizes.

TABLE 7

FEMALE M.T.O. EMPLOYEES

PERCEIVED JOB ADVANTAGES / DISADVANTAGES
PERCENT RANKED FIRST OR SECOND

	Reason Given for Taking MTO Job		Highway Maintenance Jobs in General	
Job Factor	**First Rank**	**Second Rank**	**First Rank**	**Second Rank**
JOB ADVANTAGES				
Pay	38.3%	16.7%	30.0%	18.3%
Working Outdoors	20.0	31.7	11.7	23.3
Working Hours or Shifts	5.0	1.7	3.3	5.0
Advancement Opportunities	5.0	0.0	8.3	3.3
Physical Nature of the Work	1.7	3.3	1.7	1.7
Chance to Work Overtime	1.7	0.0	8.3	3.3
Chance to Learn New Skills	0.0	6.7	8.3	6.7
Fringe Benefits	0.0	3.3	1.7	5.0
Chance to Use Existing Skills/Training	0.0	1.7	0.0	5.0
Working as Part of a Small Group or Team	0.0	1.7	5.0	5.0
JOB DISADVANTAGES				
Risk of Injury on the Job			10.0%	11.7%
Little Chance of Promotion/Advancement			8.3	5.0
High Noise Levels			8.3	6.7
Dirty or Dusty Workplace or Job Site			8.3	3.3
Working Hours or Shifts			8.3	1.7
Insecurity, Risk of Layoff *			5.0	3.3
Too Few Women in the Field *			5.0	1.7
Having to Work Outdoors			5.0	1.7
Having to Work Indoors			5.0	1.7
Working with a Team of Men *			3.3	3.3
Overtime Demands			3.3	1.7
Pay Too Low			1.7	6.7
Problems Getting to and from Work			1.7	5.0
Little Chance to Use Existing Skills			1.7	3.3
Seasonal Nature of the Work			1.7	1.7
Little Chance to Learn New Skills			1.7	1.7
Working for a Male Foreman			1.7	0.0
Boring or Routine Nature of the Job			0.0	5.0

* : Factors not included on list of disadvantages, but added by several respondents (when asked if there were other disadvantages).

TABLE 8

FEMALE M.T.O. EMPLOYEES
SATISFACTION WITH / RECOMMENDATION OF
HIGHWAY MAINTENANCE OCCUPATIONS

BY SOCIO-DEMOGRAPHIC CHARACTERISTICS

Variable	Number of Cases	Percent Satisfied with Hwy. Maint. Job *	Percent Recommend Hwy.Maint. Job to Others
TOTAL SAMPLE	(60)	78.3%	75.0%
WORK SAMPLE SITE			
Toronto (Central)	(17)	70.6	52.9
Kingston (Eastern)	(12)	83.3	91.7
Thunder Bay (North-Western)	(18)	77.8	72.2
London / North Bay (Northern / Western)	(13)	84.6	92.3
AGE OF EMPLOYEE			
Under 25 Years	(26)	84.6	76.9
25 to 30 Years	(15)	66.7	73.3
Over 30 Years	(15)	73.3	73.3
FAMILY STATUS OF EMPLOYEE			
Single	(28)	85.7	67.9
Married or Common-Law	(24)	75.0	83.3
Without Any Children	(36)	86.1	75.0
With Pre-School Children	(12)	58.3	91.7
With School-Age Children	(18)	72.2	72.2
EDUCATIONAL PROFILE			
With Some Community College	(10)	90.0	60.0
With Some University Training	(9)	44.4	55.6
Employees who are Students	(12)	75.0	75.0

* : Includes those employees responding with a satisfaction level of 4 or 5 on a five-point Likert scale.

TABLE 9

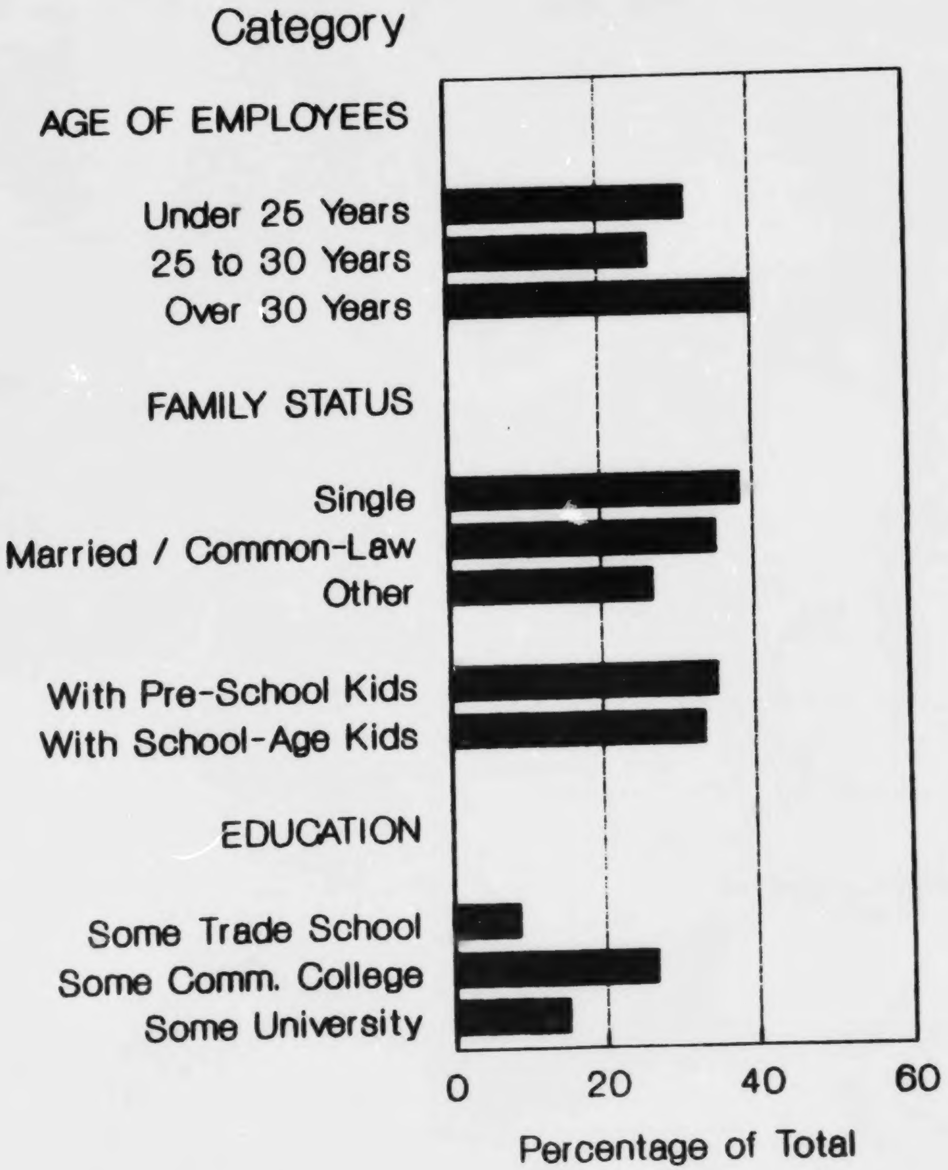
FEMALE M.T.O. EMPLOYEES
SATISFACTION WITH / RECOMMENDATION OF
HIGHWAY MAINTENANCE OCCUPATIONS

BY EMPLOYMENT PROFILE CHARACTERISTICS

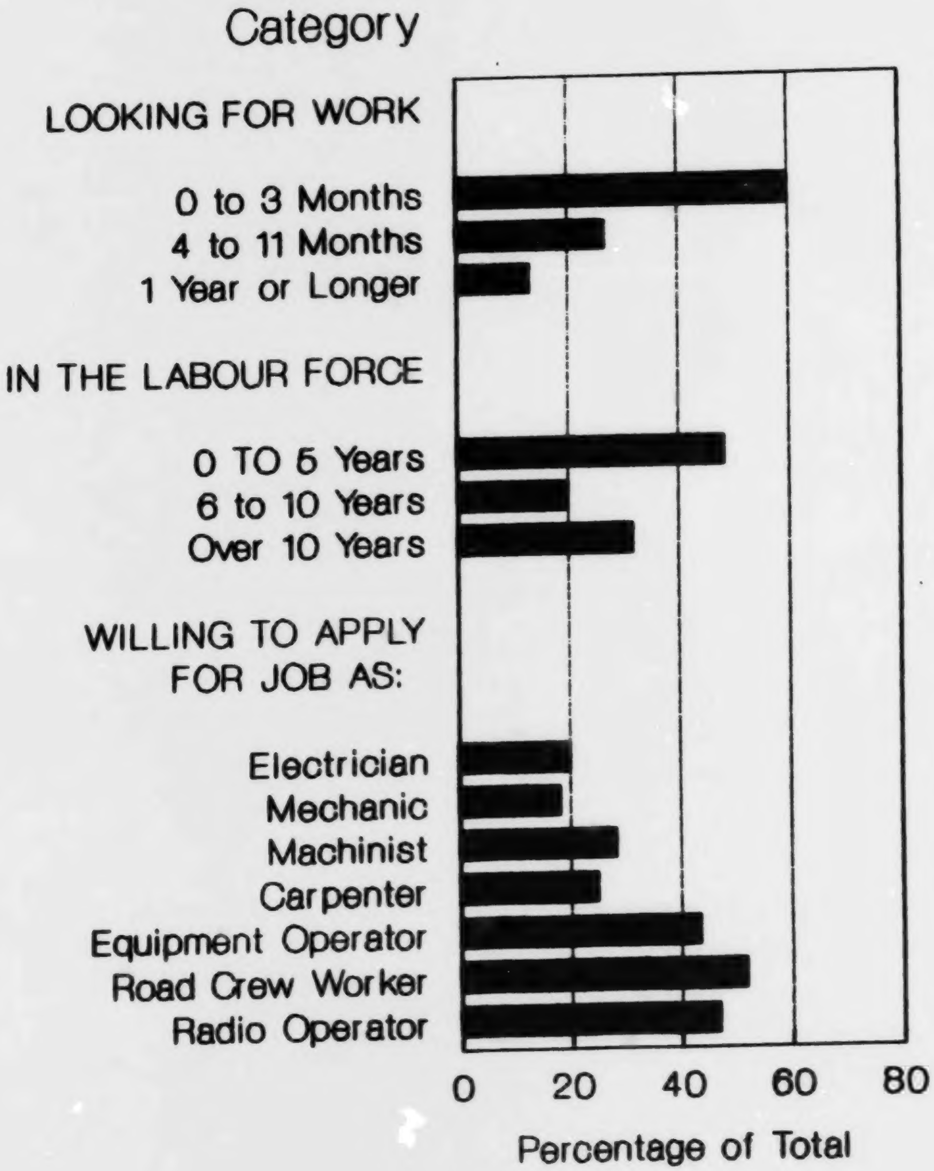
Variable	Number of Cases	Percent Satisfied with Hwy. Maint. Job *	Percent Recommend Hwy.Maint. Job to Others
TOTAL SAMPLE	(60)	78.3%	75.0%
PRESENT OCCUPATION			
Weigher, Checker	(21)	90.5	90.5
Survey Technician	(11)	72.7	72.7
General Road Crew	(9)	66.7	44.4
Manual Worker	(10)	70.0	80.0
Other MTO Occupations	(9)	77.8	66.7
OCCUPATIONAL STATUS			
Full-Time	(37)	73.0	64.9
Part-Time	(23)	87.0	91.3
Permanent	(6)	33.3	66.7
Temporary/Seasonal	(54)	83.3	75.9
LENGTH OF EMPLOYMENT			
Less Than 4 Months	(20)	95.0	80.0
4 Months to 2 Years	(18)	72.2	66.7
Over 2 Years	(16)	68.8	81.3
HOW MTO JOB FOUND			
Family, Relative Contact	(11)	90.9	90.9
Other Personal Contact	(22)	77.3	68.2
MTO Competition Ad	(7)	57.1	85.7
Through Canada Employment Centre	(5)	60.0	60.0

* : Includes those employees responding with a satisfaction level of 4 or 5 on a five-point Likert scale.

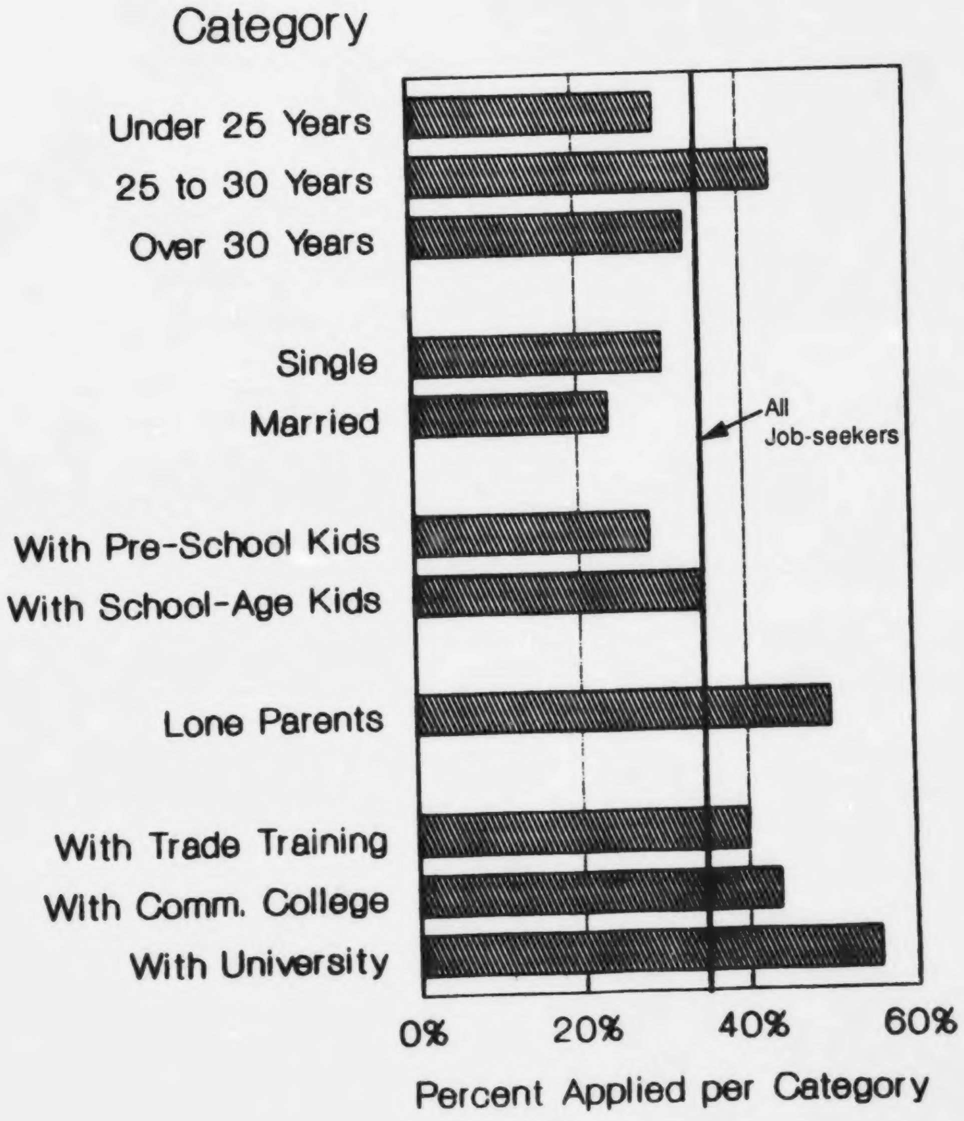
FEMALE JOB-SEEKERS SOCIO-DEMOGRAPHIC PROFILE



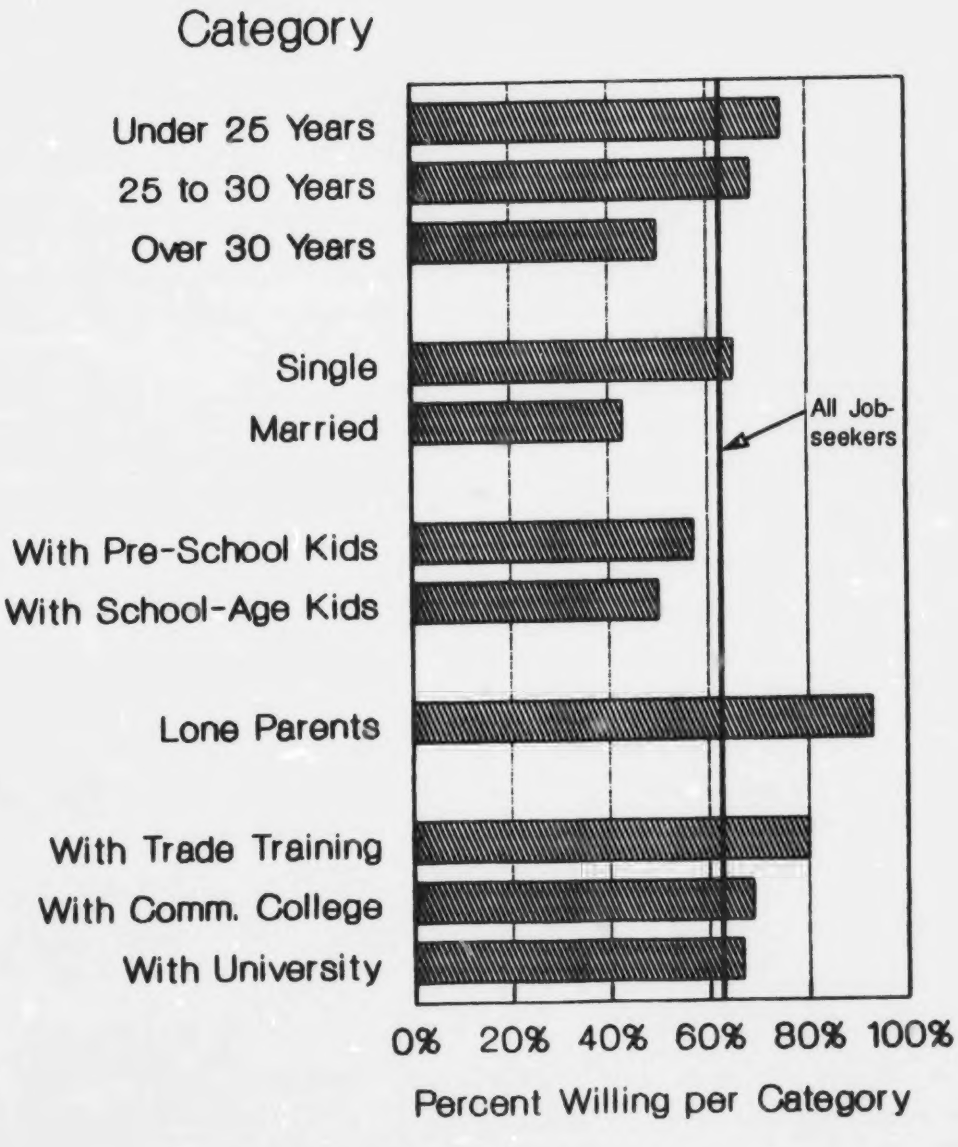
FEMALE JOB-SEEKERS EMPLOYMENT PROFILE



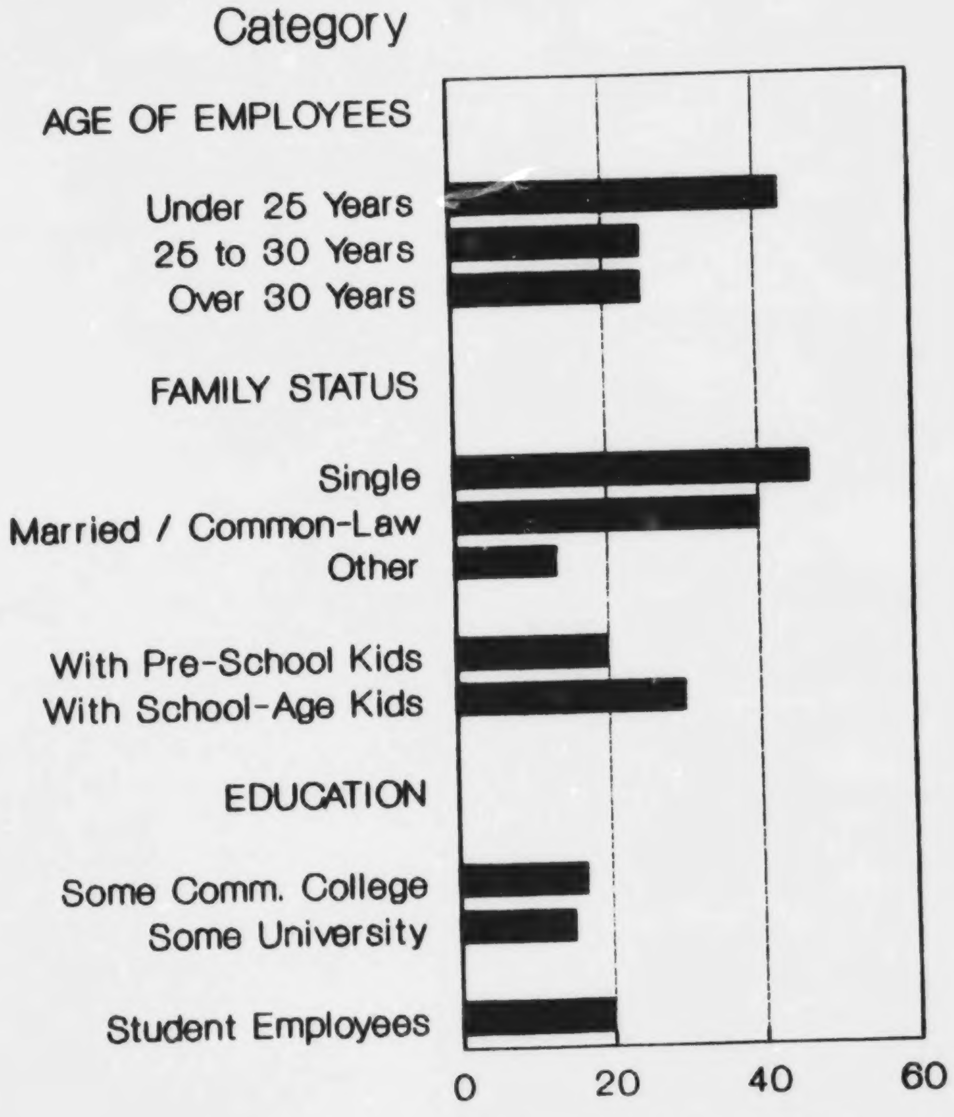
FEMALE JOB-SEEKERS APPLIED IN PAST FOR JOBS IN HIGHWAY MAINTENANCE FIELD



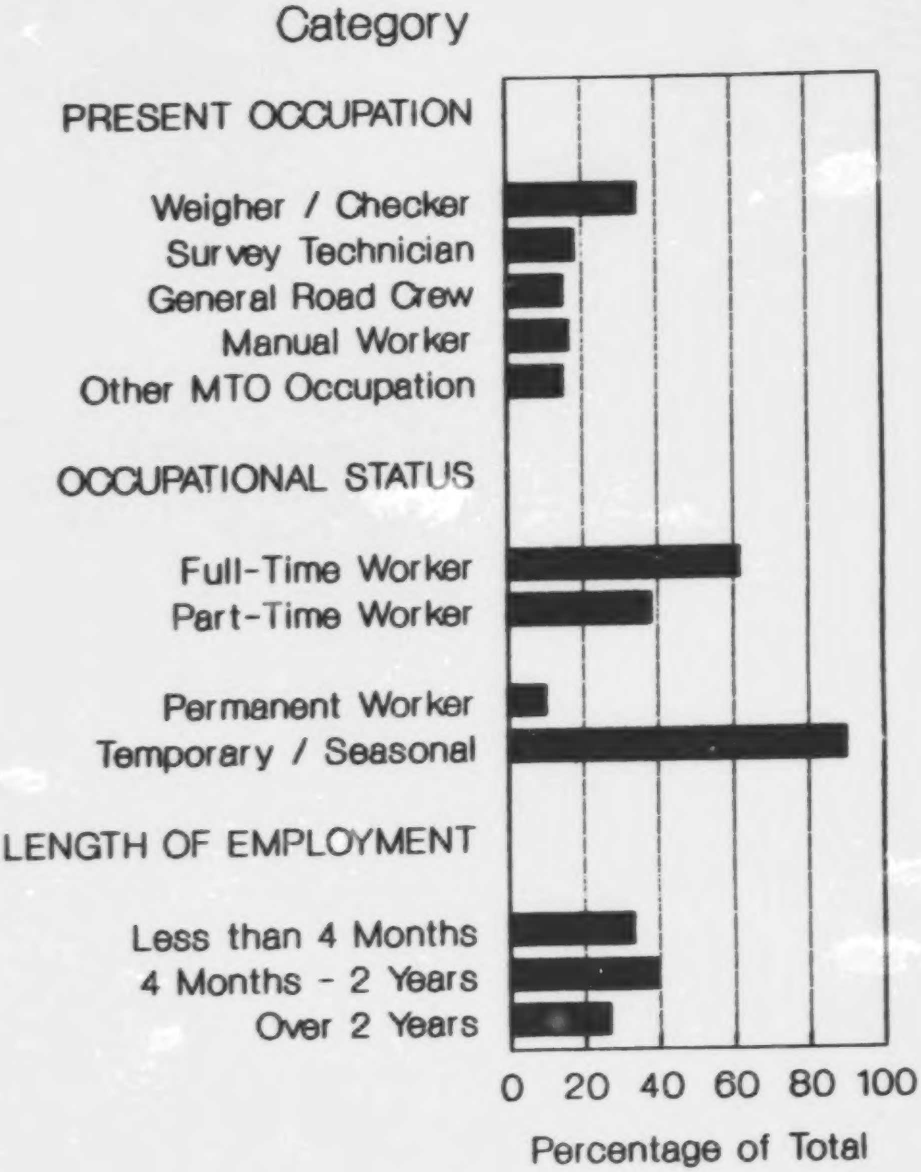
FEMALE JOB-SEEKERS WILLINGNESS TO APPLY FOR JOBS IN HIGHWAY MAINTENANCE FIELD



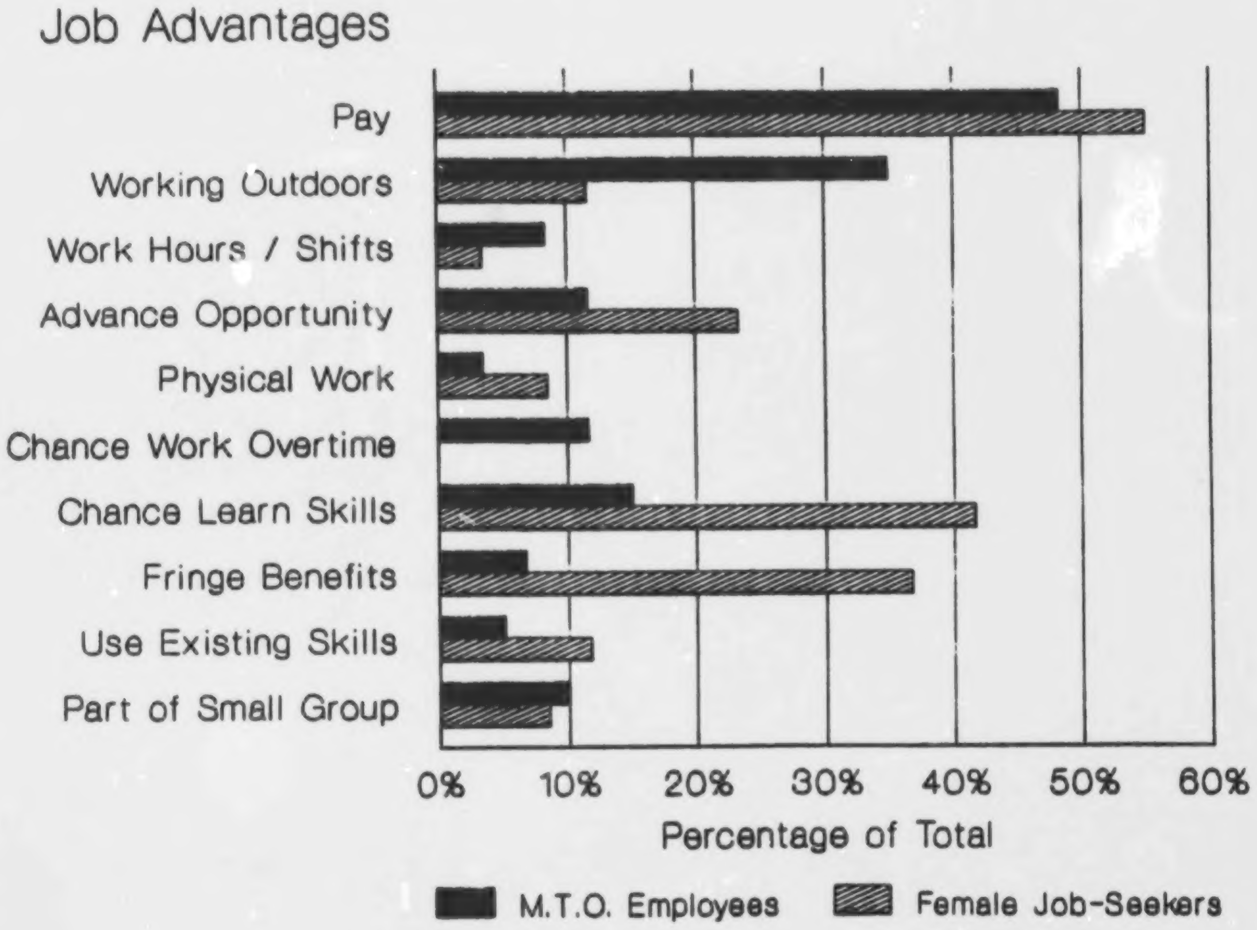
FEMALE M.T.O. EMPLOYEES SOCIO-DEMOGRAPHIC PROFILE



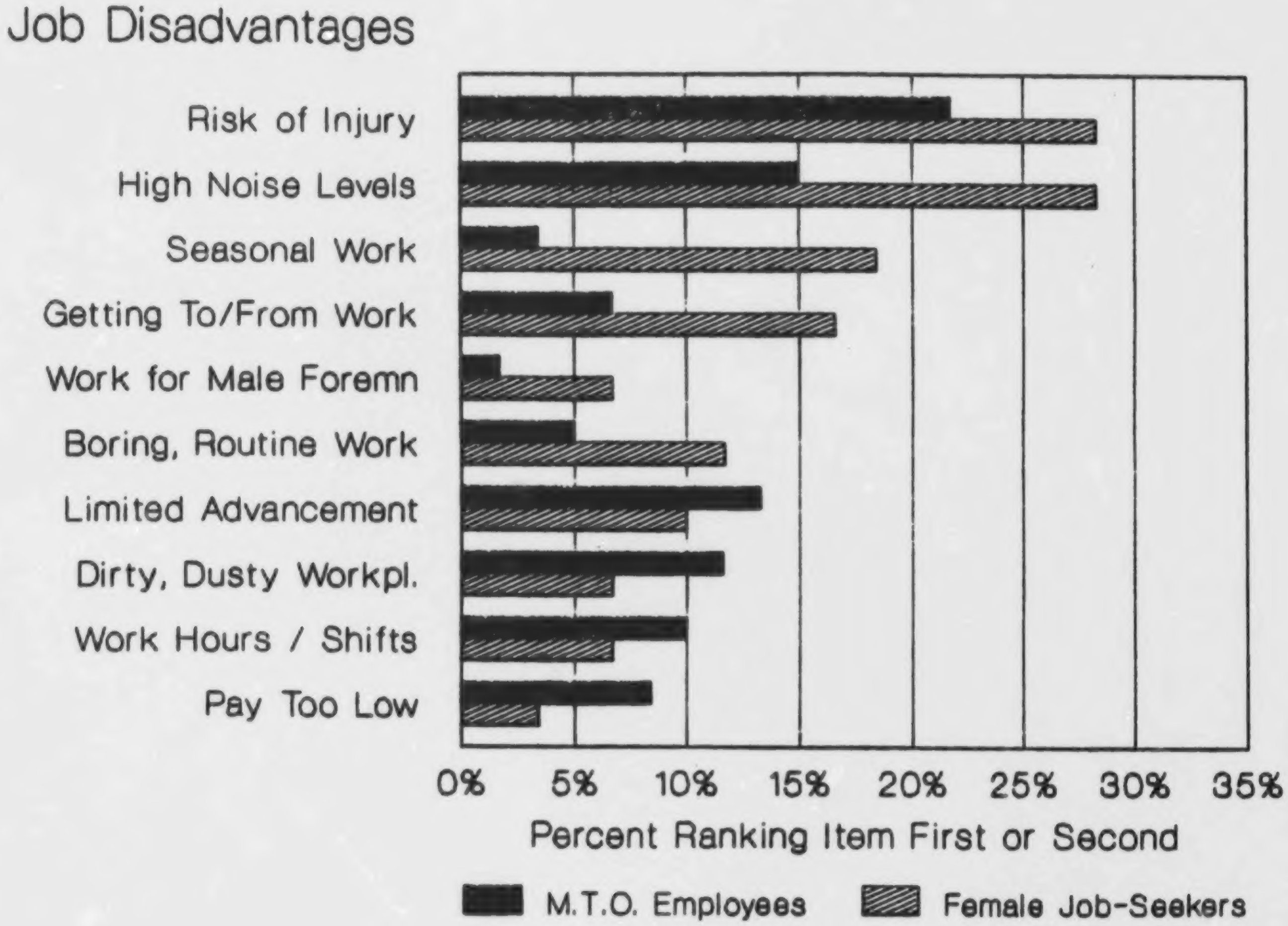
FEMALE M.T.O. EMPLOYEES EMPLOYMENT PROFILE



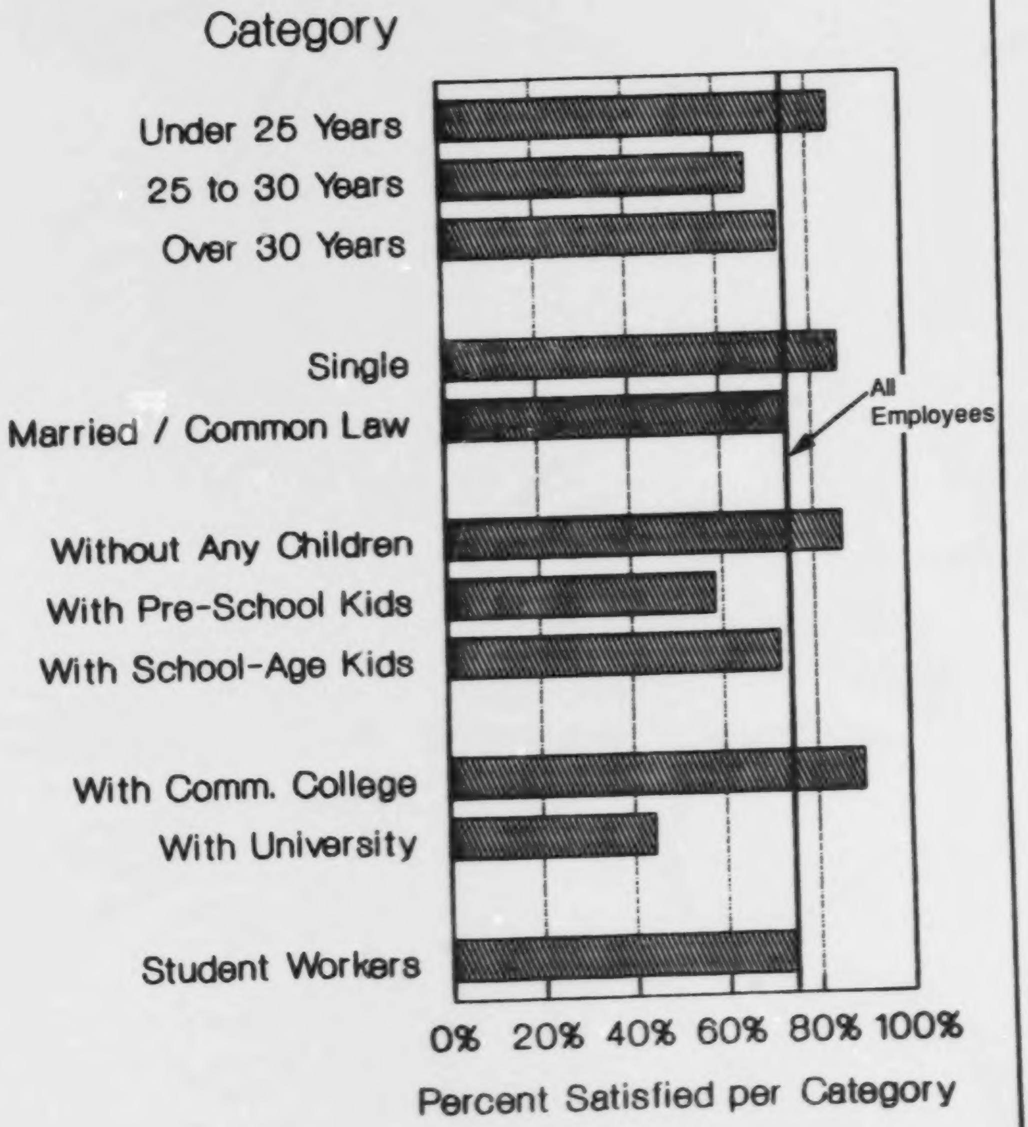
PERCEIVED JOB ADVANTAGES
M.T.O. Employees and Female Job-Seekers



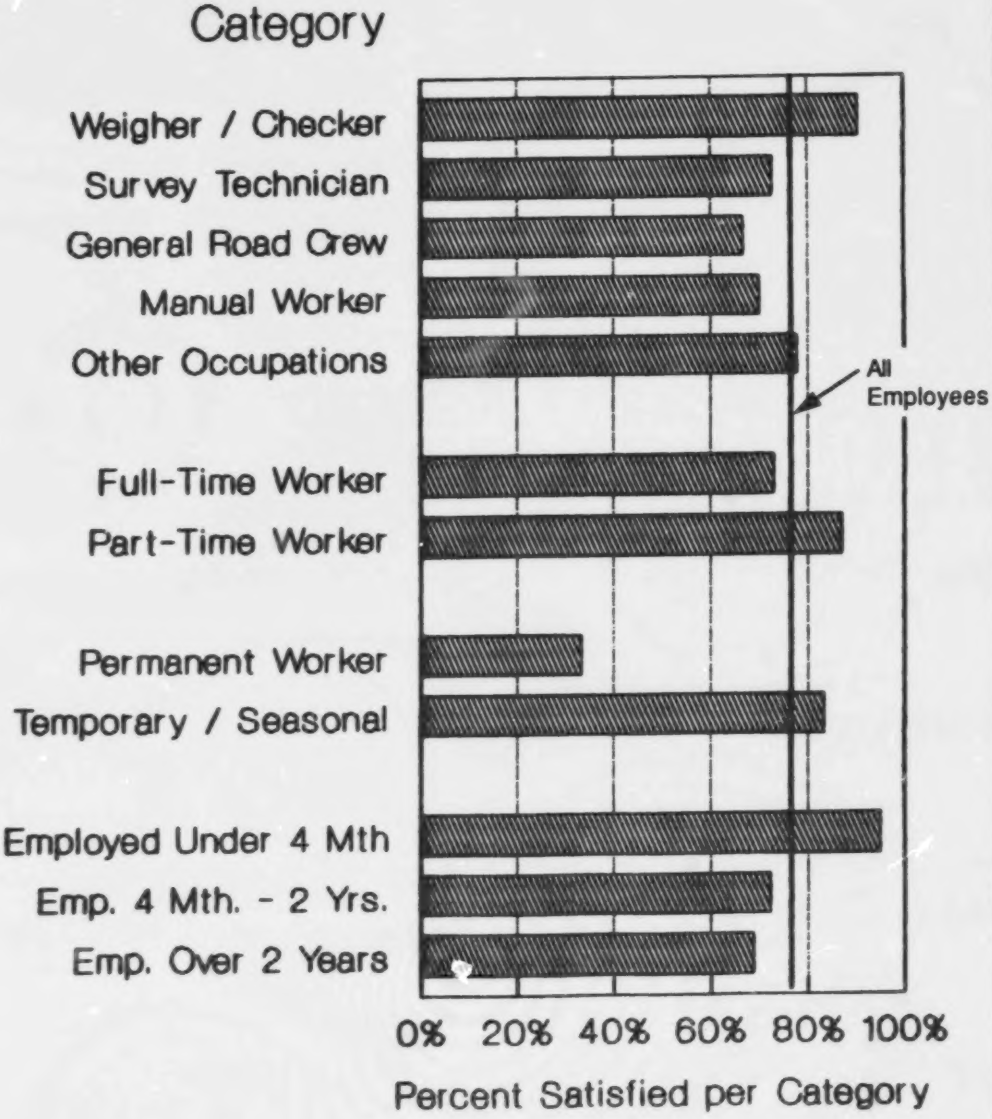
PERCEIVED JOB DISADVANTAGES
M.T.O. Employees and Female Job-Seekers

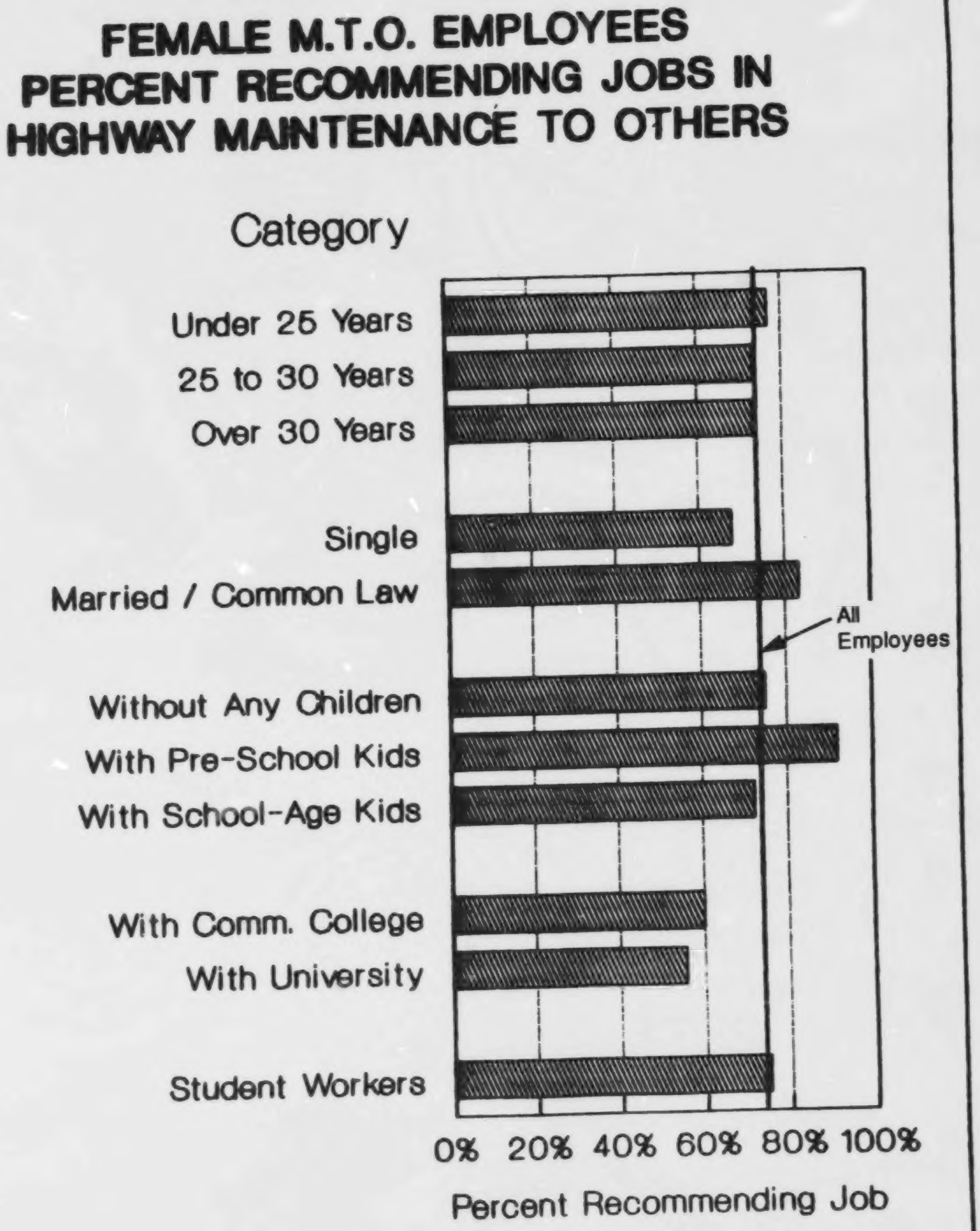


FEMALE M.T.O. EMPLOYEES SATISFACTION WITH JOBS IN HIGHWAY MAINTENANCE

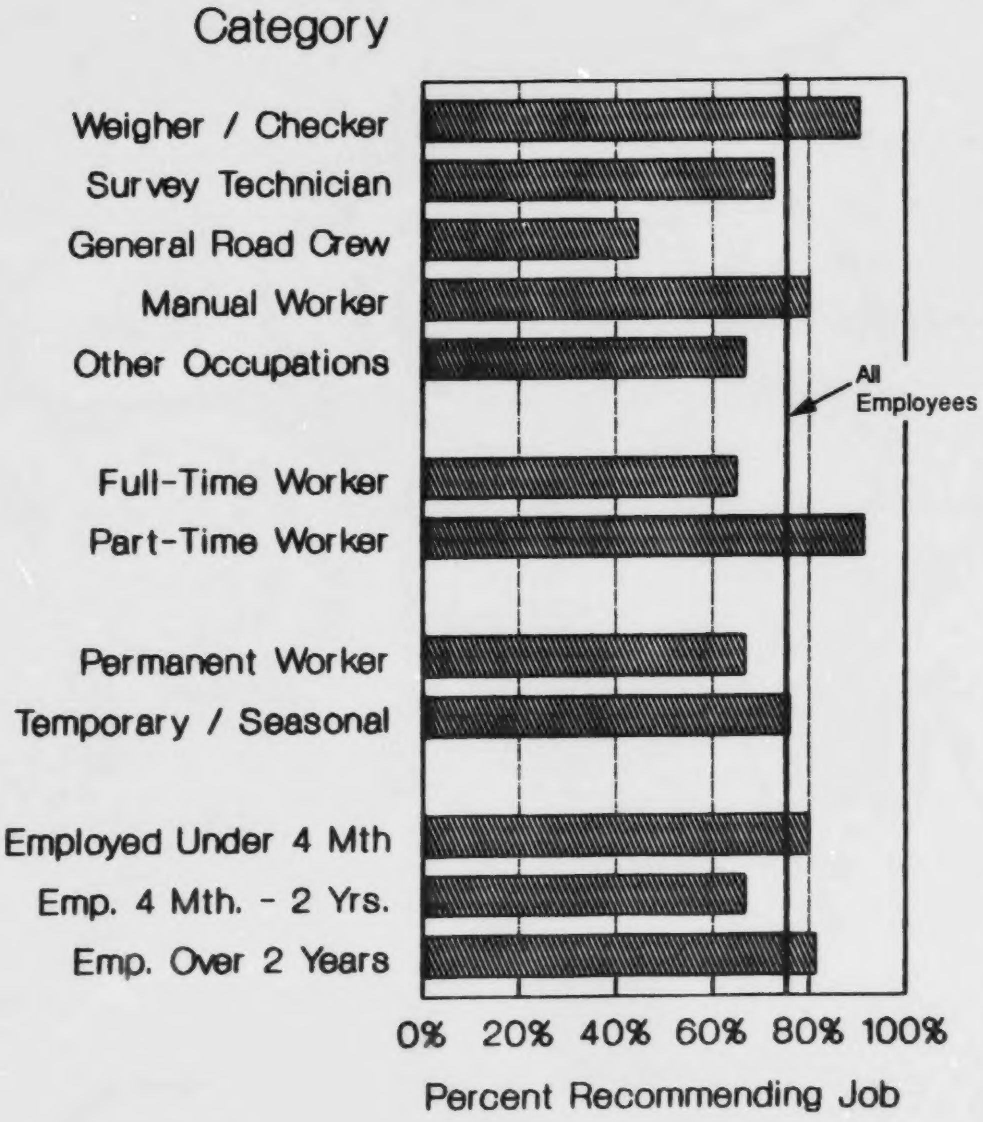


FEMALE M.T.O. EMPLOYEES SATISFACTION WITH JOBS IN HIGHWAY MAINTENANCE




FEMALE M.T.O. EMPLOYEES
PERCENT RECOMMENDING JOBS IN
HIGHWAY MAINTENANCE TO OTHERS
Category
Under 25 Years
25 to 30 Years
Over 30 Years
Single
Married / Common Law
Without Any Children
With Pre-School Kids
With School-Age Kids
With Comm. College
With University
Student Workers
All Employees
0%
20%
40%
60%
80%
100%
Percent Recommending Job

FEMALE M.T.O. EMPLOYEES PERCENT RECOMMENDING JOBS IN HIGHWAY MAINTENANCE TO OTHERS



3/ The Estimated 1986 Labour Pool Profile For Blue-Collar Jobs in Ontario

Compusearch examined labour force statistics from several sources, including the Labour Force Survey 1986 annual averages and the 1981 Census, to derive estimates of the available labour pool in Ontario. We paid particular attention to female workers, and produced our estimates to coincide with the Ministry's 18 districts. This information has been summarized and provided in Tables 10 through 13, which are shown on pages 51 to 56.

Table 10 shows the estimated female labour pool by MTO Districts. For each district, both the number of employed females and employed females as a percent of the total female labour force are shown. Estimates of unemployed females were calculated simply by subtracting the employed females from the total. The districts have been ranked in ascending order of percent employment (and therefore, in descending order of percent of unemployment).

It is clear from Table 10 that, with the exception of the Kenora district, the lowest percentages of female employment are in Northern Ontario. Central and southwestern Ontario (i.e., the Toronto, London, and Stratford districts) have the highest percentages of employed females.

In terms of absolute potential for recruitment, though, the central and southwestern districts (Toronto, Burlington, Stratford, London, and Chatham) and the Ottawa district have the highest levels of females who are not employed. This is obviously due to their greater populations. Kenora, Cochrane, and Bancroft have the lowest numbers of unemployed females.

Table 11 shows the female labour pool by MTO district, broken down into under 25 and over 25 age groups. Clearly, the bulk of the labour pool, both employed and not employed, is in the over 25 group. Despite this, the under 25 group has the lowest relative employment (i.e., the employed as a percent of the total labour force).

Again, the northern areas of Ontario have the lowest numbers of employed and unemployed women, while the lowest relative levels of unemployment are in the southern parts of the province. These trends do not appear to differ between the two age groups.

Table 12 shows a more detailed breakdown of labour force characteristics for each MTO district. From this table, it is apparent that most blue-collar workers are located in Toronto and southern

Ontario (Burlington, and Stratford). The highest proportions of blue-collar workers (derived from data in Table 12), relative to the total labour force, are in southwestern Ontario (Chatham, Stratford, and London), with high proportions also found in Port Hope, Bancroft, and Cochrane. The lowest proportions are in Thunder Bay, Huntsville, and Ottawa.

There seems to be no relationship between the proportion of blue-collar workers and the level of unemployment, however. Rather, unemployment is related to location. The north-eastern districts of North Bay, Cochrane, and Sudbury show the highest rates of unemployed workers, while Southern Ontario (especially Toronto, Stratford, and London) have the lowest proportions. In terms of absolute levels, though, the highest numbers of unemployed workers are in the large urban centres of Toronto, Burlington, and Ottawa.

Table 13 shows the Labour Force Survey 1986 annual averages for Ontario. These data were not available by MTO district, but were available for a variety of occupational categories. Females represent 43.9 percent of the entire labour force, and a slightly higher proportion (47.1%) of the unemployed labour force. However, they represent only 17.7 percent of the blue-collar labour force, and 21.9 percent of unemployed blue-collar workers. By far, the largest proportion of the unemployed women came from jobs in fabricating, processing, and material handling. Very few (3.1%) came from transportation jobs.

3.1/ How the Labour Pool Estimates Were Derived

The Labour Force Survey data were not available by MTO Districts, and Census data were not available for any period later than 1981. In addition, the Census data did not provide the desired age, sex, and employment status breakdowns. Some method of reconciling these problems was required.

Compusearch used the following strategy. Data from the Labour Force Survey were obtained for both 1981 and 1986. This allowed an estimate of percent change over these five years, for age, sex, employment status, and occupation categories. However, because the Labour Force Survey changed the definitions of its Economic Regions during this time, regional estimates of percent change were not available.

Fortunately, we were able to divide the 1981 Census data into both the 1981 and 1986 Labour Force Survey Economic Regions. This allowed us to apportion the 1981 Labour Force Survey data among the 1986 Economic Regions, in order to compute regional percent changes.

Once the regional percent changes were available, they were averaged as necessary to produce estimated percent changes by MTO district. That is, the percent change for each MTO district was calculated as the average of the percent changes of all 1986 Labour Force Economic Regions wholly or partially represented within its boundaries. The percent change figures were then applied to the 1981 Census data, to produce 1986 estimates.

These percent changes were available for all sex, employment, and occupational categories shown in Table 12. Detailed age by sex by occupation by employment status breakdowns, such as those shown in Table 13, were not available, and were not imputed. In addition, no attempt was made to ensure consistency in the totals of the Census data reported in Table 12, and the Labour Force Survey data reported in Table 13. These tables are drawn from different sources, reflecting different data-collection methods.

TABLE 10

ESTIMATED FEMALE LABOUR FORCE BY MTO DISTRICT, 1986 ESTIMATES (1,000'S) RANKED BY PERCENT EMPLOYMENT.

MTO District	Females 15+ In Labour Force	Females Employed (#)	Females Employed (%)	Females Not Employed (#)	Females Not Employed (%)
16 Cochrane	8.3	7.3	87.5%	1.0	12.5%
17 Sudbury	40.1	35.1	87.7%	4.9	12.3%
13 North Bay	19.8	17.3	87.7%	2.4	12.3%
18 Sault Ste Marie	25.1	22.2	88.7%	2.8	11.3%
14 New Liskeard	17.3	15.5	89.6%	1.8	10.4%
19 Thunder Bay	35.6	32.1	90.0%	3.5	10.0%
10 Bancroft	6.5	5.8	90.1%	0.6	9.9%
1 Chatham	119.6	108.1	90.4%	11.5	9.6%
11 Huntsville	13.7	12.5	90.7%	1.3	9.3%
4 Burlington	262.7	239.2	91.1%	23.5	8.9%
8 Kingston	78.7	72.0	91.4%	6.8	8.6%
5 Owen Sound	81.8	75.3	92.1%	6.5	7.9%
9 Ottawa	197.1	181.8	92.2%	15.3	7.8%
7 Port Hope	56.7	52.4	92.3%	4.3	7.7%
20 Kenora	13.9	12.9	92.6%	1.0	7.4%
3 Stratford	151.1	141.5	93.6%	9.7	6.4%
2 London	133.6	125.1	93.7%	8.5	6.3%
6 Toronto	862.4	818.3	94.9%	44.1	5.1%
TOTAL	2124.1	1974.4	93.0%	149.7	7.0%

Source: Estimates produced by Compusearch Market and Social Research Ltd., based on data obtained from the 1981 Census of Canada and from 1986 Labour Force Survey annual averages.

TABLE 11

ESTIMATED FEMALE LABOUR FORCE BY MTO DISTRICT AND AGE, 1986 ESTIMATES (1,000'S).

MTO District	Females 15-24 in Labour Force	Females 15-24 Employed (#)	Females 15-24 Employed (%)	Females 15-24 Not Employed (#)	Females 15-24 Not Employed (%)	Females 25-64 in Labour Force	Females 25-64 Employed (#)	Females 25-64 Employed (%)	Females 25-64 Not Employed (#)	Females 25-64 Not Employed (%)
1 Chatham	31.3	27.7	88.8%	3.5	11.2%	86.5	78.5	90.7%	8.0	9.3%
2 London	33.1	31.0	93.5%	2.1	6.5%	98.4	92.0	93.5%	6.4	6.5%
3 Stratford	36.4	32.8	90.2%	3.6	9.8%	112.5	106.4	94.6%	6.1	5.4%
4 Burlington	68.4	59.6	87.2%	8.7	12.8%	220.9	204.5	92.6%	16.4	7.4%
5 Owen Sound	18.8	16.3	86.6%	2.5	13.4%	62.1	58.1	93.5%	4.0	6.5%
6 Toronto	185.3	170.9	92.0%	14.9	8.0%	639.8	612.0	95.6%	27.9	4.4%
7 Port Hope	12.3	11.1	90.9%	1.1	9.1%	43.6	40.5	93.0%	3.1	7.0%
8 Kingston	19.5	16.9	86.9%	2.5	13.1%	58.1	53.7	92.5%	4.4	7.5%
9 Ottawa	47.3	42.4	89.6%	4.9	10.4%	146.8	136.6	93.0%	10.3	7.0%
10 Bancroft	1.6	1.3	85.2%	0.2	14.8%	4.8	4.4	91.0%	0.4	9.0%
11 Huntsville	2.8	2.5	88.6%	0.3	11.4%	10.6	9.7	91.1%	1.0	8.9%
13 North Bay	4.9	4.0	80.6%	1.0	19.4%	14.5	13.1	90.2%	1.4	9.8%
14 New Liskeard	4.3	3.6	84.2%	0.7	15.8%	12.7	11.7	92.2%	1.0	7.8%
16 Cochrane	2.2	1.9	83.5%	0.4	16.5%	5.9	5.3	90.2%	0.6	9.8%
17 Sudbury	10.6	8.8	82.6%	1.8	17.4%	28.9	25.8	89.3%	3.1	10.7%
18 Sault Ste Marie	6.7	5.6	83.6%	1.1	16.4%	18.0	16.3	90.4%	1.7	9.6%
19 Thunder Bay	9.5	8.2	86.4%	1.3	13.6%	25.4	23.3	91.6%	2.1	8.4%
20 Kenora	3.5	3.1	90.3%	0.3	9.7%	10.2	9.5	92.7%	0.7	7.3%
TOTAL	498.8	447.7	89.8%	51.1	10.2%	1599.9	1501.3	93.8%	98.5	6.2%

Source: Estimates produced by Compusearch Market and Social Research, Ltd., based on data obtained from the 1981 Census of Canada and from 1986 Labour Force Survey annual averages.

TABLE 12

ESTIMATED LABOUR FORCE SELECTED CHARACTERISTICS
BY MTO DISTRICT: 1986 ESTIMATES (1,000'S)

MTO District	Total All Occup.	Total Blue Collar	Total Pop'n Employed	Total Pop'n Unem-ployed	Males 15+ In Labour Force	Males Employed	Females 15+ In Labour Force	Females Employed	Females 15-24 In Labour Force	Females 15-24 Employed	Females 25-64 In Labour Force	Females 25-64 Employed	Pro cess ing	Machin ing & Fabric ating	Const ruc tion	Trans port ation
1 Chatham	283.9	98.3	261.9	20.2	163.3	153.8	119.6	108.1	31.3	27.7	86.5	78.5	12.1	45.8	15.6	11.4
2 London	302.5	92.6	286.3	16.3	168.9	161.0	133.6	125.1	33.1	31.0	98.4	92.0	10.2	37.1	15.0	11.6
3 Stratford	345.5	109.2	328.3	17.6	195.0	187.3	151.1	141.5	36.4	32.8	112.5	106.4	18.3	55.9	17.3	11.1
4 Burlington	630.0	186.4	583.5	43.0	365.9	344.4	262.7	239.2	68.4	59.6	220.9	204.5	27.7	81.9	35.0	21.8
5 Owen Sound	194.4	52.9	182.7	12.2	112.9	107.4	81.8	75.3	18.8	16.3	62.1	58.1	9.3	24.4	13.2	7.6
6 Toronto	1919.9	501.1	1835.5	89.8	1060.0	1017.0	862.4	818.3	185.8	170.9	639.8	612.0	50.6	200.8	99.5	56.2
7 Port Hope	132.0	40.7	123.5	8.4	75.4	71.1	56.7	52.4	12.3	11.1	43.6	40.5	5.0	18.3	9.0	4.5
8 Kingston	174.7	47.7	161.4	12.5	95.5	89.4	78.7	72.0	19.5	16.9	58.1	53.7	6.7	16.2	11.5	7.0
9 Ottawa	439.5	89.3	408.3	28.7	240.5	226.3	197.1	181.8	47.3	42.4	146.8	136.6	8.0	28.0	22.9	14.6
10 Bancroft	15.6	5.3	14.2	1.3	8.9	8.2	6.5	5.8	1.6	1.3	4.8	4.4	0.9	1.1	1.7	0.9
11 Huntsville	31.9	8.5	29.4	2.4	18.3	17.0	13.7	12.5	2.8	2.5	10.6	9.7	1.0	2.4	3.7	1.4
13 North Bay	46.1	10.7	40.9	5.3	26.7	23.7	19.8	17.3	4.9	4.0	14.5	13.1	1.5	3.4	3.0	2.1
14 New Liskeard	41.7	12.0	37.8	3.6	24.5	22.2	17.3	15.5	4.3	3.6	12.7	11.7	1.1	2.9	2.9	1.6
16 Cochrane	21.9	6.8	19.6	2.4	13.6	12.2	8.3	7.3	2.2	1.9	5.9	5.3	2.3	1.4	1.4	0.9
17 Sudbury	96.4	25.7	86.2	10.2	56.7	51.0	40.1	35.1	10.6	8.8	28.9	25.8	3.2	6.5	6.5	3.3
18 Sault Ste Marie	60.2	16.4	54.8	5.0	35.3	32.5	25.1	22.2	6.7	5.6	18.0	16.3	4.6	4.9	4.1	2.3
19 Thunder Bay	82.9	20.9	75.2	7.4	47.8	43.3	35.6	32.1	9.5	8.2	25.4	23.3	4.5	6.4	5.3	3.7
20 Kenora	33.1	9.3	30.6	2.2	19.3	17.6	13.9	12.9	3.5	3.1	10.2	9.5	1.9	1.8	2.5	1.8
TOTAL	4852.4	1333.9	4560.0	288.6	2728.5	2585.4	2124.1	1974.4	498.8	447.7	1599.9	1501.3	169.1	539.0	270.4	163.8

Source: Estimates produced by Compusearch Market and Social Research, Ltd., based on data obtained from the 1981 Census of Canada and from 1986 Labour Force Survey annual averages.

TABLE 13

ESTIMATES OF EMPLOYMENT BY OCCUPATION, EMPLOYMENT STATUS, SEX, AND AGE: 1986 ANNUAL AVERAGES (IN 1,000'S) FOR ONTARIO.

	Total All Occup.	Total Blue Collar	Process-ing	Machin-ing	Fabric-ating	Const-ruction	Trans-port-ation	Material Handling	Other Crafts	All Other Occup	Un-spec-ified
ENTIRE LABOUR FORCE											
Both sexes											
All ages	4896.6	1434.3	153.2	126.1	495.8	277.3	166.7	140.3	74.9	3440.8	21.6
15-24 years	1092.2	294.2	31.0	22.8	96.4	55.0	24.1	51.0	13.9	787.6	10.4
25 + years	3804.4	1440.1	122.2	103.3	399.4	222.3	142.6	89.3	61.0	2653.1	11.2
Males											
All ages	2746.3	1180.7	115.9	114.2	370.0	272.3	151.1	102.8	54.3	1558.5	7.0
15-24 years	572.3	245.1	23.3	20.7	75.2	53.8	21.5	41.8	8.9	321.9	5.3
25 + years	2174.0	935.6	92.7	93.6	294.8	218.5	129.6	61.1	45.4	1236.6	1.7
Females											
All ages	2150.3	253.6	37.2	11.8	125.8	5.1	15.6	37.5	20.6	1882.2	14.5
15-24 years	519.9	49.1	7.7	2.1	21.2	1.3	2.6	9.3	4.9	465.7	5.1
25 + years	1630.4	204.5	29.5	9.7	104.6	3.8	13.0	28.2	15.7	1416.5	9.4

Source: Labour Force Survey Subdivision, Household Surveys Division,
Statistics Canada.

Note: Values less than 4.0 reflect estimates produced by
Compusearch Market and Social Research, Ltd.

TABLE 13 (Continued)

ESTIMATES OF EMPLOYMENT BY OCCUPATION, EMPLOYMENT STATUS, SEX, AND AGE:
1986 ANNUAL AVERAGES (IN 1,000'S) FOR ONTARIO.

	Total All Occup.	Total Blue Collar	Processing	Machining	Fabricating	Construction	Transportation	Material Handling	Other Crafts	All Other Occup	Unspecified
EMPLOYED LABOUR FORCE											
Both sexes											
All ages	4554.7	1315.1	139.7	117.3	459.2	247.0	153.8	127.4	70.5	3239.5	0.0
15-24 years	966.2	255.9	26.2	21.1	83.6	46.2	21.0	45.0	12.6	710.3	0.0
25 + years	3588.5	1059.3	113.5	96.1	375.6	200.8	132.8	82.5	57.9	2529.3	0.0
Males											
All ages	2565.6	1087.7	107.3	106.4	346.6	242.6	139.0	94.1	51.5	1478.0	0.0
15-24 years	501.7	214.3	19.9	19.4	65.6	45.2	18.7	37.4	8.0	287.4	0.0
25 + years	2063.9	873.3	87.4	87.0	280.9	197.4	120.4	56.7	43.5	1190.6	0.0
Females											
All ages	1989.0	227.5	32.4	10.8	112.7	4.4	14.8	33.3	19.0	1761.6	0.0
15-24 years	464.4	41.5	6.3	1.7	18.0	1.0	2.4	7.6	4.6	422.9	0.0
25 + years	1524.6	185.9	26.1	9.1	94.7	3.4	12.4	25.8	14.4	1338.7	0.0

Source: Labour Force Survey Subdivision, Household Surveys Division,
Statistics Canada.

Note: Values less than 4.0 reflect estimates produced by
Compusearch Market and Social Research, Ltd.

TABLE 13 (Continued)

ESTIMATES OF EMPLOYMENT BY OCCUPATION, EMPLOYMENT STATUS, SEX, AND AGE:
1986 ANNUAL AVERAGES (IN 1,000'S) FOR ONTARIO.

	Total All Occup.	Total Blue Collar	Processing	Machining	Fabricating	Construction	Transportation	Material Handling	Other Crafts	All Other Occup	Unspecified
UNEMPLOYED LABOUR FORCE											
Both sexes											
All ages	342.0	119.2	13.5	8.8	36.5	30.3	12.9	12.9	4.4	201.2	21.6
15-24 years	126.1	38.3	4.7	1.7	12.7	8.8	3.1	6.0	1.3	77.4	10.4
25 + years	215.9	80.9	8.7	7.1	23.8	21.5	9.8	6.8	3.1	123.9	11.2
Males											
All ages	180.7	93.1	8.6	7.8	23.4	29.6	12.1	8.7	2.8	80.6	7.0
15-24 years	70.6	30.8	3.3	1.3	9.5	8.6	2.9	4.3	0.9	34.5	5.3
25 + years	110.1	62.3	5.3	6.5	13.9	21.1	9.2	4.4	1.9	46.0	1.7
Females											
All ages	161.3	26.1	4.8	1.0	13.1	0.7	0.8	4.2	1.6	120.7	14.5
15-24 years	55.5	7.5	1.4	0.4	3.2	0.3	0.2	1.8	0.3	42.8	5.1
25 + years	105.8	18.6	3.4	0.6	9.9	0.4	0.6	2.4	1.3	77.9	9.4

Source: Labour Force Survey Subdivision, Household Surveys Division,
Statistics Canada.

Note: Values less than 4.0 reflect estimates produced by
Compusearch Market and Social Research, Ltd.

4/ Women in Blue-Collar Occupations: Literature Review

4.1/ Introduction

This literature review will examine current reviews and articles pertaining to Canadian women who currently hold jobs which are considered non-traditional, with particular emphasis on blue-collar occupations. The aims of this review are to derive a characterization of these women and their jobs, and the bridges and barriers faced by women seeking or engaged in non-traditional, blue-collar employment. Although some data are provided, this review does not attempt to develop a detailed statistical profile of women in the labour force.

Although quantitative information on women in the Canadian labour force is available from several sources, these are ultimately derived primarily from Statistics Canada. The Census of Canada has provided information on the occupations of women since 1891, while the Labour Force survey has provided such data since 1945.

The bulk of the psychological and sociological literature examining women in non-traditional occupations derives from the United States, and has been published in American academic journals. Where Canadian literature exists, it indicates similar problems (especially pay equity and the need for child care), as well as similar statistical trends regarding women's participation in the labour force. Given these similarities, and the uniformity of "blue-collar" work throughout the industrialized Western nations, we may reasonably extend the American sociological and psychological findings to Canadian women.

A large number of women are excluded from official labour force statistics because they are engaged in household labour, volunteer work, or other unpaid work. Generally, only people over the age of 15 who are paid for their work are included in labour force statistics.

Nevertheless, women's participation in the labour force has been increasing since the Second World War (Armstrong & Armstrong, 1978). The number of women engaged in paid work almost doubled between 1970 and 1983, so that by the early 1980's, more than half of Canadian women over the age of 15 had jobs outside their homes (Statistics Canada, 1985). Women now comprise over 40 percent of the total labour force, and more than 70 percent of the part-time labour force (Labour Canada: Women's Bureau, 1986).

The figures presented below were not available broken down by occupational type -- they refer to trends across the entire female labour force. However, it is unlikely that trends in marital and family status will show significant differences across occupational groups.

Sixty percent of the Canadian female labour force are married, and only thirty percent are single (i.e., never married). The remaining ten percent are divorced, separated, or widowed. Nevertheless, the participation rate of married women is only 52 percent, compared with 64 percent for single and divorced/separated women. (The lowest participation rate is 17 percent for widowed women; many of these have retired from the labour force.)

One reason for higher participation rates among certain groups may be the need to support children. The labour force participation rate of women with children increased from 42 percent to 57 percent between 1975 and 1983. However, when this is broken down by age of children and presence of husband living at home, some interesting patterns emerge.

The lowest participation rates are for women with no children under the age of 16: 47.5 percent for those with no husband living at home, and 48.6 percent for those with their husbands living at home. The highest participation rate, 65.5 percent, was for women with no husband at home, and children between 6 and 15 years of age, followed by women with their husbands living at home, and children in the same age group (61.4 percent). The participation rates of women with pre-school children were slightly higher than those for women with no children under 16: 50.8 percent for women with no husband living at home, and 51.5 for those with their husbands living at home (Statistics Canada, 1985).

Thus, women with school-age children are less likely to be in the labour force if they live with their husbands. Women with pre- or post-school-age children are less likely to be in the labour force if they do not live with their husbands.

Labour force participation is greatest for women between the ages of 20 and 24 nearly three quarters of these women are in the labour force, compared to only about half of those between 15 and 19 years of age. Participation declines for each successive age group, reaching two thirds for women between 35 and 44 years old, and one third for women between 55 and 64. Less than five percent of women 65 or older are in the labour force (Statistics Canada, 1985).

These trends are expected to change as the "baby boom" generation ages: participation rates in the higher age groups will rise as those already employed grow older. Participation rates in the lower age groups will remain high, as younger women continue to enter the labour force.

Occupational segregation by gender has always existed in Canada, and similar patterns have been observed in Great Britain and the United States. Some occupations are considered "women's work", while others are "men's work".

Occupational segregation takes two forms: horizontal and vertical. Horizontal segregation occurs when men and women typically have different types of occupations. Vertical segregation occurs when one sex typically has higher-grade occupations than the other, e.g., supervisor vs. subordinate (Moore, 1985). Vertical segmentation is difficult to assess using Census and Labour Force Survey data, because of the aggregation of occupations into higher-level groups. There is considerable evidence of horizontal segregation, however.

According to the 1981 Census, 71 percent of the female labour force was employed in white collar occupations. Of these, about half were in clerical occupations. In contrast, only 39 percent of the male labour force was employed in white collar occupations, of which just over half were in managerial and professional occupations.

Of the female labour force employed in blue-collar occupations, more than half were in service and recreation jobs. About one-tenth were in crafts, production, and processing occupations. Nearly 70 percent of the male blue-collar labour force were in these three occupational groups, while only one sixth were in service and recreation jobs.

According to 1983 figures (Statistics Canada, 1985), some 757 thousand women were employed in goods-producing and primary industries, representing 16.8 percent of the female labour force. An additional 4.6 percent were employed in transportation, communications, and other utilities. Although the general trend has seen an increase in the number of women in these blue-collar jobs, the percentage of the female labour force employed in these industries has actually been declining. This indicates that an increasing majority of women entering the labour force during this period moved into white-collar or pink-collar jobs (i.e., clerical, service, sales, medical and health professions, and teaching).

Women are under-represented in agriculture (28.8 percent of the labour force employed in this industry), other primary industries (11.0 percent), manufacturing (28.2 percent), and construction (10.1 percent). Women are over-represented in the service industries, with the exception of transportation, communications, and other utilities, where they comprise 23.9 percent of those employed in this industry.

4.2/ Problems Faced by Women in Blue-Collar Jobs

Women in blue-collar occupations face a number of job-related problems; some of which are because they are women in a traditionally male environment, and some of which are intrinsic to the work itself. The former are more pronounced during the initial period on the job, but the latter become predominant as the women gain work experience and their male co-workers become used to their presence.

Work-related problems can be classified as "internal" to the job (problems which are inherent in the job or caused by the employer), and "external" (problems which the woman would face no matter where she was employed).

4.2.1/ Problems "Internal" to the Job

The physical working environment can present problems to both male and female workers. In one U.S. study (McIlwee, 1982), female blue-collar workers expressed concern with the risk of injury in factory and shipyard environments, and this is certainly a concern to anyone working with machinery. These women also complained about poor ventilation and climate control, high noise levels, dirtiness, and the general unsightliness of the industrial environment. In addition to these problems, O'Farrell (1982) reports that some women have complained of being the only female employee on a shift (especially a night shift), and suggests the need for improved lighting and better restroom facilities.

Health and safety hazards are of particular concern to pregnant women. O'Farrell suggests that while men have been working in poor or hazardous conditions for years, women may not be willing to put up with them, and may even be discouraged from even trying jobs in such environments. McIlwee suggests that while any worker might find unpleasant conditions objectionable, women are more likely to do so because their earlier experience with traditionally female jobs had sheltered them from such work environments.

Two further complaints are more specific to female workers. One is the unfamiliarity of the work: several women in the study described above felt a disadvantage compared to their male co-workers regarding mechanical, technical, or physical tasks: they attributed this to their inexperience with technical work and their generally smaller physical size.

A second complaint was the inconvenience of shift work or overtime, especially to women with small children. In one study of potential blue-collar employees, half of the women surveyed would not accept a job requiring shift work (Lillydahl, 1986).

Perhaps the most frequent complaint of female blue-collar workers concerns the negative, and frequently hostile, attitudes of employers and fellow employees. Despite equal-opportunity legislation, many women experience sex discrimination in employment. Several studies (e.g., Armstrong & Armstrong, 1978; McIlwee, 1982; Harlan & O'Farrell, 1982) have shown that even when women are hired as a result of affirmative action, they are assigned jobs which are characterized by poor working conditions, low salaries, and little chance of advancement. In addition, they are also placed in positions where they are more likely to be laid off as a result of economic downturns or the arrival of new technology.

Many of the women interviewed in the above studies complained of poor relationships with their supervisors and co-workers. Among their complaints were: receiving patronizing treatment by men who didn't take them seriously as co-workers; being the victims of insults and practical jokes; being excluded from social interactions with co-workers; and receiving harassment (including sexual harassment) of varying degrees. As they stayed on the job, the nature of these complaints changed: general harassment and hostility decreased, while patronization and sexual harassment increased. According to McIlwee, this indicates that the women were being treated less like illegitimate intruders, but rather as females in a male-dominated society.

O'Farrell (1982) reports that on-the-job harassment often comes from only a few men, and suggests two reasons that have little to do with the woman's sex: First, if the woman is unqualified for the job, others will have to do much of the work for her. Of course, this would be in addition to their usual duties. Second, if the woman has transferred from a position where she gained seniority (usually a clerical or other female-dominated position in the same company), others on the work team with less seniority will be in more danger of losing their jobs at the next lay-off.

Many women in blue-collar occupations are initially satisfied with the pay and benefits they receive, which are typically higher than those received by women in traditionally female jobs. Nevertheless, blue-collar women are typically restricted to the low-wage sector of the economy.

The Women's Bureau of Labour Canada (1986) reports that the average woman's income in 1983 was only 52.3 percent of the average man's, and that on the average, women earned less than men in every occupational category. The higher a woman's education, the closer her income was to a man's at the same level, suggesting that the greatest disparity is in those jobs which do not require advanced education.

Furthermore, married women (who make up 60 percent of the female labour force) receive the lowest wages, averaging only 45.8 percent of men's income. Unmarried women, on the average, are paid 89.4 percent of men's income. Thus, the bulk of the female labour force earns less than half of the average man's income.

Equal pay legislation serves to reinforce segregation (Ontario Status of Women Council, 1980). Instead of raising women's wages to meet men's, employers sometimes resort to hiring women only, and continue to pay them the same low wage. In addition, the "internal discrimination" in assigning jobs to women, described above, results in women being paid less than men: because they are not given work of equal value, they do not receive equal pay. (This is especially true for non-white women.)

4.2.2/ Problems "External" to the Job

U.S. data suggests that although the number of working women has tripled since 1940 and the number of working mothers has increased more than tenfold, the division of household responsibilities has not changed (Russo & Denmark, 1984). Women who feel that a woman's primary role is in the home, or that they can only take jobs if they can also fulfill their roles as wives and mothers, choose less demanding jobs, jobs with lighter educational prerequisites, and jobs which can be interrupted as family demands occur (Cushmir, 1983). This has been put forward as the reason why women dislike jobs involving shift work and overtime (Lillydahl, 1986).

In Canadian homes, child care and housework responsibilities fall largely on women, whether or not they have jobs outside the home. A 1981 survey (Employment and Immigration Canada &

Statistics Canada, 1981) suggests that women not in the labour force spend 3.3 times as much time doing housework and child-care activities as men who are not in the labour force. Although employed women only spend about six-tenths as much time on these activities as women not in the labour force, they still spend 2.6 times as much time in these activities as employed men. Labour-force status has little effect on men's participation in child-care and housework activities.

The issue of child care is closely related to the division of labour in the home, as women bear the brunt of child-rearing responsibilities. Men who are in the labour force seem more willing to share child-care responsibilities than those who are not, but nevertheless, employed women spend twice as much time on child-care activities as employed men (Employment and Immigration Canada & Statistics Canada, 1981).

Despite mothers' high participation in the labour force, many authors have identified child-care responsibilities as a major barrier to women's occupational advancement, limiting the hours they can work and the types of jobs they can hold. Women who must take care of their own children cannot work outside the home, and those who can both afford and find adequate day-care facilities often cannot take jobs which require shift work, overtime, or overnight travel.

Feminist groups both in the U.S. and Canada have pushed for more comprehensive child care policies on the part of government, in order to ensure that mothers of young children are not held back from pursuing their careers. The number of day-care spaces available in Canada quadrupled between 1973 and 1982, yet at the end of that period they still served only 11 percent of children in non-parental care. Most children are supervised in another private home, or by someone coming into the child's home (Statistics Canada, 1985).

The Ontario Status of Women Council believes that the availability of accessible and affordable child care is essential to the attainment of full equality for women in the Ontario labour force (Ontario Status of Women Council, 1980). Russo and Denmark (1984) point out that in the U.S., child care remains a formidable problem, even though family size is decreasing. Not only is there a need for better day-care, but also for adequate night-time child care for women working night shifts. Russo and Denmark (1984) also suggest that the care of aged parents is also falling on daughters, and is becoming a growing problem.

According to Cushmir's (1983) review, women in non-traditional occupations are typified by the following traits (among others): They tend to be active, dominant, self-confident, and psychologically masculine. They enjoy outdoor activities, and prefer challenge and pay over job security. They rank skilled trades higher in prestige than do traditional women. However, these women also tend to need recognition and self-identity, and feel conflict between career and marriage.

The conflict between the traditional wife/mother sex role and doing a non-traditional "man's job" may present problems for some women beyond the practical difficulties of sharing household responsibilities. A woman who is not comfortable in a non-traditional role may experience conflicting self-perceptions, trying to balance the "feminist" and "traditional" sides of her personality, and possibly switching roles as she moves from work to non-work situations. Cushmir suggests that the effort to avoid such role conflict discourages women from pursuing male-dominated occupations.

Assumptions concerning sex-appropriate jobs may also underlie assessment instruments designed for career counselling, employee selection, and promotion decisions. One of the most popular, the Holland Occupational Model, is based on a "map" of the labour market attached to personality differences among people, and among the occupations that others like them have chosen in the past. Several popular job-search handbooks have been based on this model (see Moore & Ollenburger, 1986).

Moore and Ollenburger's data show that the six work environments of this model (Realistic, Investigative, Artistic, Social, Enterprising, and Conventional) parallel the sex segregation of the labour market, and reveal a research foundation with the potential to reinforce economic inequalities between the sexes. The "right" job, based on this model, is significantly related to the sex of the test-taker, and women and men who use these job-search strategies will find that their sex-role choices predict their job "preferences". Even when controlling for age, education, and job tenure, the Holland classifications reproduce income inequalities for female employees. The authors concluded that current models of work and job counselling tests and techniques may reinforce, rather than eliminate, the economic disadvantages for women.

4.3/ Attracting Women to Blue-Collar Jobs

Previous incentives to attract women to blue-collar jobs seem to have been restricted to affirmative action programs and equal pay legislation. Generally, these have been initiated by government rather than by private-sector employers, and have met with little success in terms of reducing occupational segregation and pay inequity based on sex. As the data discussed above show, jobs are often simply re-classified as female-only, and employers can continue to hire women for low-status, low-paying jobs.

In the U.S., despite the Civil Rights Act of 1964 (which reduced job discrimination in theory), non-traditional employment has not changed dramatically (Cushmir, 1983). Cushmir suggests that this is not because employers have not tried to eliminate sex stereotypes in the workplace, but because of the lack of applicants: men have not sought traditionally female jobs, and women have not sought traditionally male jobs.

Lillydahl (1986) suggested five reasons why women have a lower interest in blue-collar occupations than men of similar age and education: (1) Women may prefer white-collar to blue-collar employment; (2) women may seek out only socially acceptable (i.e., traditional) employment; (3) some women may no longer desire blue-collar work because of previous experience with sex discrimination or harassment on the job; (4) women may feel unqualified for blue-collar work, being unaware of job requirements and the availability of training or apprenticeship programs; and (5) the working hours and schedules of some blue collar work may prevent women with young children from taking such jobs.

The recommendations put forth by social scientists and government bodies have typically been concerned with improving conditions for women currently employed in non-traditional jobs, and have ignored incentives for encouraging women entering the labour force to choose non-traditional careers. Both in the U.S. and Canada, recommendations have focused on the needs for granting equal pay for work of equal value, affirmative action programs to encourage the hiring of women and minorities, and improved child-care programs to assist working mothers (e.g., Ontario Status of Women Council, 1980; Russo & Denmark, 1984).

Lillydahl (1986) went beyond these usual suggestions, and discussed the need for three types of policies in order to encourage women to take blue-collar jobs: (1) policies aimed at increasing women's job-related skills; (2) policies aimed at making blue-collar jobs more acceptable to both sexes, by improving work schedules, providing safer work environments, and so on; and (3) policies aimed at changing attitudes, such as eliminating harassment on the job, providing appropriate female role models, and so on. She also suggested that target groups of women who might be interested in blue-collar work must be identified, so that apprenticeship programs and employers can successfully recruit these women.

O'Farrell (1982) concludes her review with the assertion that women are indeed interested in nontraditional blue-collar jobs, and that traditional recruitment methods designed for young boys and men are not appropriate for attracting women. According to O'Farrell, recruitment efforts should provide women with information about what job opportunities there are, what the jobs are like, what qualifications are needed, what procedures must be followed in order to get the jobs, and what the advantages are beyond wages. The information should also include realistic assessments of the difficulties and problems that are likely to be encountered.

O'Farrell recommends that women who have succeeded in non-traditional jobs be used as role models to encourage other women. Information about the actual jobs and working environments can be provided in audio-visual presentations, tours of the work area, and opportunities to try parts of the job and get hands-on experience with the tools. Transition programs should be set up for women who wish to transfer from other jobs within an organization, to ensure that they do not lose seniority, pay, or benefits as a result of their job change. Trainees should be placed with foremen or workmen who are known to be careful and supportive teachers, and employers should consider placing women in pairs so that they are not isolated in a job, shift, department, or building. Training and support is also important for the men on the job, who need more information on working women, changing roles, and how these affect themselves and their jobs.

4.4/ Summary and Conclusions

Although women comprise more than 40 percent of the Canadian labour force, only one-fifth of them are in blue-collar occupations. Perhaps because women are so poorly represented in these jobs, they have been largely ignored both by social scientists and policy-makers.

However, these women have their own particular problems and concerns, in addition to those experienced by all working women. These problems include being assigned to unpleasant, low-prestige, low-paying jobs, suffering the hostility and harassment of their male co-workers, and balancing household and child-care responsibilities with a job that may require overtime or shift work.

Apart from pay equity, affirmative action, and child-care issues, recommendations concerning public policy have ignored the needs of blue-collar women. Incentives encouraging women to seek non-traditional, and specifically blue-collar, occupations either have not been tried, or, if they have been, have simply been ignored in the literature.

Nevertheless, a bridges-and-barriers analysis of women seeking blue-collar positions is possible based on the literature reviewed here, and incentive programs to encourage women to seek these occupations can be designed. Such a program may not be able to eliminate some of the barriers described above (e.g., harassment by fellow employees, conflicts with household duties, lack of child care), but others can be readily dealt with. Offering women the same jobs at the same wages as men would eliminate pay inequity, and as more women take these jobs, they will serve as role models to others. The job schedules may need to be adapted to suit the schedules of working mothers.

Traditional recruitment efforts directed toward young men, and age limits in hiring employees and accepting apprentice trainees are barriers to women seeking non-traditional blue-collar jobs. Young women lack information about these jobs, and are typically directed toward traditionally female jobs, both by high-school counsellors and by their own perceptions that their jobs are only a temporary stop-gap before they take up their "real" role as housewives and mothers.

Removing age restrictions and broadening recruitment efforts to include both sexes will alert women to the possibility of non-traditional jobs both early in their working lives and as a new career direction later in life, once they have had children and are trying to re-enter the work force.

The advantages of blue-collar occupations can certainly be played up as attractors, especially to the "right" kind of applicant: The higher wages (compared to traditional women's jobs), the outdoor physical activity required by some positions, and the chance to develop technical and mechanical skills will be seen as attractive by some women considering these occupations. Other attractive features include job security, the challenge and interest of jobs which typically involve more variety than clerical or assembly-line work, and greater autonomy on the job. The recruitment potential in emphasizing these features should not be overlooked.

4.5/ References

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Compusearch/IMSA

Maintenance Occupations Survey: Female Job-Seekers

Hello, I'm ____________________ from Compusearch Market and Social Research. I'd like to get your opinion about certain kinds of jobs. We are conducting a survey for a government employer who wants to find out about women's attitudes toward working in the highway maintenance field. These questions will take only about fifteen minutes of your time. All of your answers will be kept completely confidential; information about you will not be supplied to anyone. Your responses will be compiled with all the others who have responded, and will not be reported individually.

If you wish to participate, but can't do so right now, give me your name and telephone number, and I will call you at a more convenient time. We can then do the survey over the telephone.

Name ____

Telephone ____________________

Call back to complete survey: Date __________ Time __________

Compusearch / IMSA

Maintenance Occupations Survey: Female Job-Seekers

I'd like to begin by finding out a little about you, before we go on to the main survey.

1. **What is your marital status?** ☐
Code: 1 = Single; 2 = Married/Common-Law; 3 = Separated; 4 = Divorced; 5 = Widowed;
0 = Not Answered

IF NOT "MARRIED/COMMON-LAW" THEN GO TO QUESTION 6

2. **Is your husband/partner working?** ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

IF HUSBAND/PARTNER NOT EMPLOYED THEN GO TO QUESTION 6

3. **What is his job?** ☐☐
Specify: ______________________________
Code:
1 = Professional
2 = Managerial, Administrative
3 = Sales
4 = Services Occupations
5 = Farming, Other Primary Industries
6 = Processing
7 = Machining
8 = Fabrication, Assembly, Repair
9 = Construction
10 = Transportation Equipment Operation
11 = Material Handling
12 = Other Crafts/Equipment Operation
99 = Not Applicable/Not Employed

4. **Does he work full-time, or part-time?** ☐
Code 1 = Full-time; 2 = Part-time; 0 = Not Answered

5. **Do you have any children living at home?** ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

IF "YES" THEN ASK:

What are their ages?
Record ages of children

____ ____ ____ ____ ____

☐☐
☐☐
☐☐
☐☐
☐☐

6. **Approximately what percent of your family's total income do you contribute?** ☐☐☐
Record percentage

7. **How far did you go in school? To what grade?** ☐☐
Record highest grade achieved ____ ☐☐
Code Number of Years
Code Level of Education: ☐
- 1 = Grade 9 or less
- 2 = Some High School
- 3 = High School Graduate
- 4 = Some Trade/Vocational School
- 5 = Trade/Vocational School Graduate
- 6 = Some Community College
- 7 = Community College Graduate
- 8 = Some University
- 9 = University Graduate

IF NOT "TRADE/VOCATIONAL", "COMMUNITY COLLEGE", OR "UNIVERSITY" THEN GO TO QUESTION 9

8. **What courses were you taking, or what program were you enrolled in?** ☐☐
Record response, to be coded later

____

9. **How old are you?** ☐☐
Record actual years, 99 for Not Answered

10. **What kinds of job are you looking for now?** ☐☐
Record up to three separate responses ☐☐ ☐☐

1. ______________________________
2. ______________________________
3. ______________________________

Code each:
- 1 = Professional
- 2 = Managerial, Administrative
- 3 = Sales
- 4 = Services Occupations
- 5 = Farming, Other Primary Industries
- 6 = Processing
- 7 = Machining
- 8 = Fabrication, Assembly, Repair
- 9 = Construction
- 10 = Transportation Equipment Operation
- 11 = Material Handling
- 12 = Other Crafts/Equipment Operation

11. **Are you looking for full-time, or part-time work? Permanent, or temporary?** ☐
Code
- 1 = Full-time permanent
- 2 = Part-time permanent
- 3 = Full-time temporary
- 4 = Part-time temporary

12. **How long have you been actively looking for work?** ☐☐
Record number of months

13. **I'd like you to rank the three most effective ways of finding a job:**

SHOW CARD TO RESPONDENT

____ Applying in person (with no "leads") ☐
____ Newspaper ads ☐
____ Radio ads ☐
____ Television ads ☐
____ Contacts who are family or relatives ☐
____ Contacts who are friends, neighbours, or co-workers ☐
____ Canada Employment Centres ☐
____ Other employment agencies or services ☐

14. **When you find work, will you be using a car, or will you be using public transit, or some other way of getting there?** ☐
Code 1 = Car; 2 = Public Transit; 3 = Other; 0 = Don't Know

15. **How long has it been since you were last working, either full-time or part-time?** ☐☐
Record number of months, 99 = never worked before

IF NOT PREVIOUSLY EMPLOYED, THEN GO TO QUESTION 19

16. **What was your last job?** ☐☐
Specify: ______________________________
Code as in Question 10

17. **Why did you leave your last job?** ☐☐
Record response to be coded later

____

____

____

18. **How many years have you worked in total, on all jobs?** ☐☐
Record number of years, 99 = No Answer

19. As I said before, we're mostly interested in what workers know about highway maintenance jobs, and if they'd be interested in this kind of work.

There is a variety of jobs in this field, including highway equipment operators, other road crew members, radio operators, snow plow operators, traffic control, sign painting, and grass maintenance. There are also some specialized trades, such as machinists, carpenters, and electricians.

These are some of the main features of these jobs:

- They pay between $9.00 and $20.00 an hour, depending on training and experience.
- Some involve working in small groups or road crews.
- Some of them require shift work and overtime, which varies from season to season.
- Some of these jobs are outdoors, and require travelling to different work sites.
- Some of these jobs also require physical or manual labour.

The first thing I'd like to know is whether or not you knew about these jobs before our conversation today. Were you aware that there are job opportunities in maintenance? ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

20. **How much did you know about these jobs before our conversation today? Would you say you knew a lot about these jobs, something (but not a lot) about them, or very little about them?** ☐
Code 1 = A lot; 2 = Some; 3 = Little; 0 = Not Answered

21. **I'd like you to tell me what you think would be the main benefits of these jobs. First of all, are there any advantages which are important to you, but are not on this list?**
(If "Yes", record below under "Other")

What is it about these jobs that you would find most appealing or interesting? What would be the most important advantage or benefit, in your opinion? The second most important? Etc...

SHOW CARD TO RESPONDENT
Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐☐
____ Fringe benefits (health care, etc.) ☐☐
____ Being able to work outdoors ☐☐
____ Being able to work indoors ☐☐
____ Physical nature of the work ☐☐
____ Chance to learn new skills ☐☐
____ Chance to use exising skills or training ☐☐
____ Working as part of a small group or team ☐☐
____ Being able to work alone ☐☐
____ Working hours or shifts ☐☐
____ Opportunity to work overtime ☐☐
____ Seasonal nature of the job ☐☐
____ Other, specify:________________________ ☐☐
____ Other, specify:________________________ ☐☐
____ Other, specify:________________________ ☐☐

After each response, probe further — **Can you think of any other advantage or benefit of this type of work; something else which would appeal to you?**

22. **Can you think of any other things which would lead you to consider a job in this field? Are there any changes which could be made to make it easier for you to consider and accept a job in this field?**
Record response to be coded later

____ ☐☐

____

23. **Now, could you tell me what you think would be the main disadvantages or drawbacks of these jobs? First, are there any disadvantages which you feel are important, but are not on this list?** (If "Yes", record below under "Other")

In your opinion, what would be the worst drawback? The second worst? Etc...

SHOW CARD TO RESPONDENT
Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay too low ☐☐
____ Having to work outdoors ☐☐
____ Having to work indoors ☐☐
____ High noise levels ☐☐
____ Dirty or dusty workplace or job site ☐☐
____ Risk of injury on the job ☐☐
____ Physical nature of the work ☐☐
____ Working hours or shifts in general ☐☐
____ Overtime demands ☐☐
____ Seasonal nature of the job ☐☐
____ Problems getting to and from work ☐☐
____ Boring or routine nature of the job ☐☐
____ Little chance to learn new skills ☐☐
____ Little chance to use existing skills ☐☐
____ Little chance of promotion or advancement ☐☐
____ Having to work for a male foreman or supervisor ☐☐
____ Having to work with a group or team of men ☐☐
____ Other, specify:____________________ ☐☐
____ Other, specify:____________________ ☐☐
____ Other, specify:____________________ ☐☐

After each response, probe further — **Can you think of any other disadvantage of this type of work; something else which would "turn you off" these jobs?**

24. Can you think of some ways to reduce or eliminate some of these drawbacks? Are there things that you, the employer, or others can do to remove these problems, and make these jobs more appealing to you?
Record up to three responses to be coded later

____ ☐☐

____ ☐☐

____ ☐☐

25. Have you ever applied for a job in the highway maintenance field, or similar jobs in another field? ☐
Code 1 = Yes; 2 = No; 3 = Not Applicable

IF "NO" THEN GO TO QUESTION 32

26. How many of these jobs have you applied for, in total? ☐☐
Code number of jobs applied for

27. Did you get any job offers? ☐
Code 1 = Yes; 2 = No; 3 = Not Answered

IF NO JOB OFFERS RECEIVED, GO TO QUESTION 30

28. Did you refuse any of these offers? ☐
Code 1 = Yes; 2 = No; 3 = Not Answered

IF "YES" THEN ASK:

29. Why?
Record up to three responses to be coded later

____ ☐☐

____ ☐☐

____ ☐☐

IF ONE OR MORE JOB OFFERS ACCEPTED, GO TO QUESTION 31

30. Why do you think you didn't receive any offers? ☐
Code:
1 = Not qualified for the job
2 = Over-qualified for the job
3 = Too many other applicants
4 = Did not express a real interest in the job
5 = Don't know why
6 = Other reason(s), specify: ____________________________

31. **Regarding your last job,I'd like to know what the specific job title was, how long you were there, and why you left the job.**

JOB TITLE ________________ ☐☐

MONTHS AT THAT JOB ________________ ☐☐

REASON FOR LEAVING ________________ ☐

For JOB TITLE, code:
1 = Electrician
2 = Mechanic
3 = Machinist
4 = Carpenter
5 = Other trades
6 = Equipment Operator
7 = Road Crew, General
8 = Radio Operator/Dispatcher
9 = Other operations
10 = Other, not Hwy Maint.

For REASON FOR LEAVING, code:
1 = Left to take new job
2 = Work ended/Laid off
3 = Promoted, same employer
4 = Fired or dismissed
5 = Left - family obligations
6 = Left for other reasons (Don't specify)

32. **Based on what you know now, would you look for a job in maintenance now?** ☐
Code 1 = Yes; 2 = No; 3 = Unsure/Don't Know

IF "NO" OR "NOT SURE" THEN GO TO QUESTION 34

33. **Which jobs in particular?**

PROBE FOR LIST

For each job, code 1 = Suited; 2 = Not Suited; 3 = Unsure/don't know

Electrician? ____ ☐

Mechanic? ____ ☐

Machinist? ____ ☐

Carpenter? ____ ☐

Equipment Operator? ____ ☐

Road Crew, General? ____ ☐

Radio Operator/
Dispatcher? ____ ☐

Other ? ____ ☐

(Specify, code later ________________) ☐☐

GO TO QUESTION 35

34. **Why do you feel that you wouldn't be suited for jobs in this field?**

PROBE FOR COMPLETE RESPONSE: Do you not have the right training or experience? Are you not interested in these jobs? Etc.

Record up to three responses to be coded later

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

35. **Jobs in the highway maintenance field are mostly held by men. How does this affect your willingness to look for a job in this field?**
Record up to three responses to be coded later

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

36. **Now I'd like to show you a list of possible advantages or benefits of working in any job, and ask you to rank the top five advantages. Tell me what you think is the most important advantage of a job, the second most important, and so on to the fifth most important.**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐
____ Fringe benefits (health care, etc.) ☐
____ Being able to work outdoors ☐
____ Being able to work indoors ☐
____ Physical nature of the work ☐
____ Chance to learn new skills ☐
____ Chance to use exising skills or training ☐
____ Working as part of a small group or team ☐
____ Being able to work alone ☐
____ Working hours or shifts ☐
____ Opportunity to work overtime ☐
____ Seasonal nature of the job ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐

37. **Now I'm going to show you a list of possible disadvantages or drawbacks of working in any kind of job. This time, I'd like you to rank the five worst disadvantages of work. Tell me what you think the worst drawback of working is, the second worst, and so on to the fifth worst.**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay too low ☐
____ Having to work outdoors ☐
____ Having to work indoors ☐
____ High noise levels ☐
____ Dirty or dusty workplace or job site ☐
____ Risk of injury on the job ☐
____ Physical nature of the work ☐
____ Working hours or shifts in general ☐
____ Overtime demands ☐
____ Seasonal nature of the job ☐
____ Problems getting to and from work ☐
____ Boring or routine nature of the job ☐
____ Little chance to learn new skills ☐
____ Little chance to use existing skills ☐
____ Little chance of promotion or advancement ☐
____ Having to work for a male foreman or supervisor ☐
____ Having to work with a group or team of men ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐

END THE INTERVIEW BY ASKING THE RESPONDENT IF SHE HAS ANYTHING MORE SHE WOULD LIKE TO ADD. RECORD RELEVANT COMMENTS FOR LATER CODING.

Compusearch/IMSA

Maintenance Occupations Survey: Female MTO Employees

Hello, I'm ____________________ from Compusearch Market and Social Research. I'd like to get your opinion about certain kinds of jobs. We are conducting a survey for the Ministry of Transportation and Communications, to find out about women's attitudes toward working in the highway maintenance field. These questions will take only about fifteen minutes of your time. All of your answers will be kept completely confidential; information about you will not be supplied to anyone. Your responses will be compiled with all the others who have responded, and will not be reported individually.

If you wish to participate, but can't do so right now, give me your name and telephone number, and I will call you at a more convenient time. We can then do the survey over the telephone.

Name ____

Telephone ____________________

Call back to complete survey: Date __________ Time __________

Compusearch / IMSA

Maintenance Occupations Survey: Female MTO Employees

I'd like to begin by finding out a little about you, before we go on to the main survey.

1. **What is your marital status?** ☐
Code 1 = Single; 2 = Married/Common-Law; 3 = Separated; 4 = Divorced; 5 = Widowed

IF NOT "MARRIED/COMMON-LAW" THEN GO TO QUESTION 6

2. **Is your husband/partner working?** ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

IF HUSBAND/PARTNER NOT EMPLOYED THEN GO TO QUESTION 6

3. **What is his job?** ☐☐
Specify: ______________________
Code: 1 = Professional
2 = Managerial, Administrative
3 = Sales
4 = Services Occupations
5 = Farming, Other Primary Industries
6 = Processing
7 = Machining
8 = Fabrication, Assembly, Repair
9 = Construction
10 = Transportation Equipment Operation
11 = Material Handling
12 = Other Crafts/Equipment Operation
99 = Not Applicable/Not Employed

4. **Does he work full-time, or part-time?** ☐
Code 1 = Full-time; 2 = Part-time; 3 = Not Answered

5. **Do you have any children living at home?** ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

IF "YES" THEN ASK:

What are their ages? ☐☐ ☐☐ ☐☐ ☐☐ ☐☐
Record ages of children

____ ____ ____ ____ ____

6. **Approximately what percent of your family's income do you contribute?** ☐☐☐
Record percentage

7. **How far did you go in school? To what grade?**
Record highest grade achieved _____ ☐☐
Code Number of Years ☐☐
Code Level of Education: ☐
1 = Grade 9 or less
2 = Some High School
3 = High School Graduate
4 = Some Trade/Vocational School
5 = Trade/Vocational School Graduate
6 = Some Community College
7 = Community College Graduate
8 = Some University
9 = University Graduate

IF NOT "TRADE/VOCATIONAL", "COMMUNITY COLLEGE", OR "UNIVERSITY" THEN GO TO QUESTION 9

8. **What courses were you taking, or what program were you enrolled in?** ☐☐
Record response, to be coded later

____

9. **How old are you?** ☐☐
Record actual years, 99 for Not Answered

10. **What is your present job?** **(Check all that apply)** ☐☐
Code 1 = Electrician _____
2 = Mechanic _____
3 = Machinist _____
4 = Carpenter _____
5 = Other Trades _____

Specify ____________________

6 = Equipment Operator _____
7 = Road Crew, General _____
8 = Radio Operator/Dispatcher _____
9 = Other Operations _____
10 = Other MTO Occup. _____

Specify ____________________

11. **Is your present job full-time, or part-time?** ☐
Code 1 = Full-time; 2 = Part-time

12. **Is your present job permanent, or seasonal?** ☐
Code 1 = Permanent; 2 = Seasonal

13. **How long have you been working at this job?** ☐☐☐
Record number of months, 999 = Not Answered

IF NOT "SEASONAL" WORKER, THEN ASK

14. **Are you a student?** ☐
Code 1 = Yes; 2 = No; 0 = Not Answered

IF NOT A SEASONAL WORKER AND NOT A STUDENT THEN GO TO QUESTION 17

15. **Are you a full-time student, or a part-time student during the regular academic year?** ☐
Code 1 = Full-time; 2 = Part-time; 3 = Not Answered

16. **What program are you enrolled in?** ☐☐
Record response, to be coded later

____

17. **How did you find out about this job?** ☐
Code 1 = Through Canada Employment Centre
2 = Family or relatives
3 = Personal contact or friend
4 = Newspaper advertisement
5 = MTO competition advertisement
6 = Other employment agency or service
7 = Other
(specify: ______________________)

IF NOT "FAMILY OR RELATIVES" OR "PERSONAL CONTACTS", THEN GO TO QUESTION 21

18. **Who first told you about this job? What is his/her relationship to you?** ☐☐
Record response, to be coded later

____

19. **Does this person work for the Ministry of Transportation ?** ☐
Code 1 = Yes; 2 = No; 0 = Not Applicable

IF "YES", THEN ASK:

20. **What is his/her job there?** ☐☐
Record response, to be coded later as in Question 10

____

21. **What were your main reasons for taking this job? Did you have any reasons which are not on this list?**
(If "Yes" then record below under "Other")

What did you find most appealing or interesting about this job? What was your most important reason for taking this job? The second most important? Etc...

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐☐

____ Fringe benefits (health care, etc.) ☐☐

____ Being able to work outdoors ☐☐

____ Being able to work indoors ☐☐

____ Physical nature of the work ☐☐

____ Chance to learn new skills ☐☐

____ Chance to use existing skills or training ☐☐

____ Working as part of a small group or team ☐☐

____ Being able to work alone ☐☐

____ Working hours or shifts ☐☐

____ Opportunity to work overtime ☐☐

____ Seasonal nature of the job ☐☐

____ Opportunity for advancement or promotion ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

After each response, probe further — **Can you think of any other advantage or benefit of this type of work; something else which appeals to you?**

22. **I'm going to list some features you might find on any job. For each of them, I want you to give me a number to indicate how satisfied you are with that aspect of *your* job, ranging from "1" for "Not at all satisfied" to "5" for "Completely satisfied".**
(Record number)

____ The pay ☐

____ The benefits ☐

____ The type of work ☐

____ Job security ☐

____ Your relationship with your [illegible]visor ☐

____ Your relationship with your co-workers ☐

____ The working hours or shifts ☐

____ The distance between home and work ☐

____ The chance to use your skills ☐

23. **Overall, how satisfied would you say you are with your present job?** ☐
Code 1 = "Not at all satisfied" to 5 = "Completely satisfied"

24. **Are there any special skills which you brought to the job, which have helped you to do your work?**
Record up to three responses to be coded later

____ ☐☐

____ ☐☐

____ ☐☐

25. **Do you have any skills which could be used more fully in doing your job? Which skills are these?**
Record up to three responses to be coded later

____ ☐☐

____ ☐☐

____ ☐☐

26. **Would you recommend your kind of job to other women looking for work?** ☐
Code 1 = Yes; 2 = No; 3 = Unsure/Don't Know

IF "NO" OR "NOT SURE" THEN ASK

27. **Why would you not recommend this kind of job to other women?**
Record up to three responses to be coded later

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

28. **Now I'd like to show you a list of possible advantages or benefits of working in highway maintenance, and ask you to rank the top five advantages. Tell me what you think is the most important advantage of your job, the second most important, and so on to the fifth most important.**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐

____ Fringe benefits (health care, etc.) ☐

____ Being able to work outdoors ☐

____ Being able to work indoors ☐

____ Physical nature of the work ☐

____ Chance to learn new skills ☐

____ Chance to use existing skills or training ☐

____ Working as part of a small group or team ☐

____ Being able to work alone ☐

____ Working hours or shifts ☐

____ Opportunity for overtime ☐

____ Seasonal nature of the job ☐

____ Opportunity for advancement or promotion ☐

____ Other, specify:____________________ ☐

____ Other, specify:____________________ ☐

____ Other, specify:____________________

29. **Now I'm going to show you a list of possible disadvantages or drawbacks of working in highway maintenance. First, are there any disadvantages which you feel are important, but which are not on this list?**
(If "Yes", record below undser "Other")

Now , I'd like you to rank the five worst disadvantages of work. Tell me what you think the worst drawback is, the second worst, and so on to the fifth worst.

SHOW CARD TO RESPONDENT
Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay too low ☐
____ Having to work outdoors ☐
____ Having to work indoors ☐
____ High noise levels ☐
____ Dirty or dusty workplace or job site ☐
____ Risk of injury on the job ☐
____ Physical nature of the work ☐
____ Working hours or shifts in general ☐
____ Overtime demands ☐
____ Seasonal nature of the job ☐
____ Problems getting to and from work ☐
____ Boring or routine nature of the job ☐
____ Little chance to learn new skills ☐
____ Little chance to use existing skills ☐
____ Little chance of promotion or advancement ☐
____ Having to work for a male foreman or supervisor ☐
____ Having to work with a group or team of men ☐
____ Co-workers' attitudes ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐

30. **Can you think of any ways to reduce or eliminate some of the disadvantages you just told me about? Are there things that you, your employer, or others could do to lessen these problems, and make your job more pleasant?**
Record response to be coded later ☐☐

____

____

____

31. **How long do you expect to be working at your present job?**
Code number of months, 999 = Don't know ☐☐☐

END THE INTERVIEW BY ASKING THE RESPONDENT IF SHE HAS ANYTHING MORE SHE WOULD LIKE TO ADD. RECORD RELEVANT COMMENTS FOR LATER CODING.

Compusearch/IMSA

Maintenance Occupations Survey: CEC Counsellors

Hello, I'm ____________________ from Compusearch Market and Social Research. I'd like to get your opinion about certain kinds of jobs. We are conducting a survey for a government employer who wants to find out about women's attitudes toward working in the highway maintenance field. These questions will take only about fifteen minutes of your time. All of your answers will be kept completely confidential; information about you will not be supplied to anyone. Your responses will be compiled with all the others who have responded, and will not be reported individually.

If you wish to participate, but can't do so right now, give me your name and telephone number, and I will call you at a more convenient time. We can then do the survey over the telephone.

Name ____

Telephone ____________________

Call back to complete survey: Date __________ Time __________

Compusearch / IMSA

Maintenance Occupations Survey: CEC Counsellors

1. **During an average month, how many women would pass through this office in search of employment?**
Record actual number, 999 = Not Answered ☐☐☐

2. **What percentage of these women would you say are specifically looking for what are broadly defined as "blue-collar" jobs?**

EXPLAIN IF NECESSARY — **These would include jobs in processing; machining; product fabrication, assembly and repair; construction trades; transportation; and material handling.**

Record percentage, 999 = Not Answered ☐☐☐

3. **What percentage of all women would you say are generally looking for "blue-collar" jobs, though not searching exclusively in this area?**
Record percentage, 999 = Not Answered ☐☐☐

I'd like to focus on those women either specifically looking for, or generally interested in blue-collar jobs.

4. **What are some of the common background characteristics of women looking for blue-collar jobs?**

PROBE — **Is there an average age group? What about their marital status? What about their education? What about their work histories? Etc...**
Record up to three responses for later coding

____________________ ☐☐

____________________ ☐☐

____________________ ☐☐

5. **Can you differentiate between those women who have a clear idea of the type of blue-collar job they want, and those who do not?**
Code 1 = Yes; 2 = No; 3 = Don't know/Not sure ☐

IF "YES" THEN ASK:

6. **How? In what ways are they different?**

PROBE — **Do they differ in age? What about their marital status? What about their education? What about their work histories? Etc...**
Record up to three responses for later coding

____________________ ☐☐

____________________ ☐☐

____________________ ☐☐

7. **What blue-collar occupations are women typically interested in? Are there some common characteristics of these jobs, and what are they?**
Record up to five responses for later coding

____

____

____

☐☐
☐☐
☐☐
☐☐
☐☐

8. **Do those women with a clear idea of what they want generally find work in their chosen area?**
Code 1 = Yes; 2 = No; 3 = Don't know/Not sure

☐

IF "NO" OR "DON'T KNOW" THEN GO TO QUESTION 11

9. **Is this more true for some jobs than others?**
Code 1 = Yes; 2 = No; 3 = Don't know/Not sure

☐

IF "NO" OR "DON'T KNOW" THEN GO TO QUESTION 11

10. **What jobs are these?**
Record up to five responses for later coding

____

____

____

☐☐
☐☐
☐☐
☐☐
☐☐

11. **Are there certain types of blue-collar jobs that women are typically not interested in?**
Code 1 = Yes; 2 = No; 3 = Don't know/Not sure

☐

IF "NO" OR "DON'T KNOW" THEN GO TO QUESTION 14

12. **What jobs are these?**
Record up to five responses for later coding

____

____

____

☐☐
☐☐
☐☐
☐☐
☐☐

13. **Why do you think women are not interested in these jobs?**
Record up to three responses for later coding

____

____

____

☐☐
☐☐
☐☐

14. **Now I'd like to show you a list of possible advantages or benefits of working in blue-collar jobs. First, I'd like to ask you if there are any advantages or benefits which you feel are important, but are not on this list.**
(If "Yes", record below under "Other")

Now, I'd like you to rank the top five advantages, as you see them, for women seeking these jobs. For the average female job-seeker, tell me what you think is the most important advantage of a job, the second most important, and so on to the fifth most important.

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐
____ Fringe benefits (health care, etc.) ☐
____ Being able to work outdoors ☐
____ Being able to work indoors ☐
____ Physical nature of the work ☐
____ Chance to learn new skills ☐
____ Chance to use existing skills or training ☐
____ Working as part of a small group or team ☐
____ Being able to work alone ☐
____ Working hours or shifts ☐
____ Opportunity for overtime ☐
____ Seasonal nature of the job ☐
____ Opportunity for advancement or promotion ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐

15. **Are there any changes which could be made by you, by employers, or by others which would make blue-collar work in general more attractive to female job-seekers?**
Record up to three responses for later coding

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

16. **Are there any other ways to encourage women to consider blue-collar jobs?**
Record up to three responses for later coding

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

17. **Now I'm going to show you a list of possible disadvantages or drawbacks of blue-collar jobs. Again, I'll begin by asking you if there are any disadvantages or drawbacks which you feel are important, but are not on this list.**
(If "Yes", record below under "Other")

This time, I'd like you to rank the five worst disadvantages of work, as you see them, for women seeking these jobs. For the average female job-seeker, tell me what you think the worst drawback of blue-collar work is, the second worst, and so on to the fifth worst.

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited. ☐

____ Pay too low ☐

____ Having to work outdoors ☐

____ Having to work indoors ☐

____ High noise levels ☐

____ Dirty or dusty workplace or job site ☐

____ Risk of injury on the job ☐

____ Physical nature of the work ☐

____ Working hours or shifts in general ☐

____ Overtime demands ☐

____ Seasonal nature of the job ☐

____ Problems getting to and from work ☐

____ Boring or routine nature of the job ☐

____ Little chance to learn new skills ☐

____ Little chance to use existing skills ☐

____ Little chance of promotion or advancement ☐

____ Having to work for a male foreman or supervisor ☐

____ Having to work with a group or team of men ☐

____ Other, specify: ____________________ ☐

____ Other, specify: ____________________ ☐

____ Other, specify: ____________________

18. We're primarily interested in women's perceptions of a group of occupations in highway maintenance. There are a variety of jobs in this field, including highway equipment operators, other road crew members, radio dispatchers, snow plow operators, traffic control, sign painting, and grass maintenance. There are also some skilled trades such as mechanics, machinists, carpenters, and electricians.

These are some of the main features of these jobs:

— They pay between $9.00 and $20.00 an hour, depending on training and experience.
— Some of these jobs involve working in small groups or road crews.
— Some of them require shift work and overtime, which varies from season to season.
— Some of these jobs are outdoors, and require travelling to different work sites.
— Some of these jobs also require physical or manual labour.

It is also important to note that most jobs in this area are presently held by men.

Have you encountered any women who are actively looking for work in highway maintenance?
Code 1 = Yes, 2 = No, 0 = Not Answered ☐

IF "NO", THEN GO TO QUESTION 21

19. **How many?**
Record actual number, 999 for Not Answered ☐☐☐

20. **What are some of the common background characteristics of these women?**

PROBE — **Is there an average age group? What about their marital status? What about their education? What about their work histories? Etc...**
Record up to three responses for later coding

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

21. **What percentage of female job-seekers are aware of, or ask about job opportunities in the highway maintenance field?**
Record percentage ☐☐☐

IF "NONE" THEN ASK

22. **Why are women not aware of these opportunities?**
Record response for later coding ☐☐

____

____

____

23. **What do you feel would be seen as the major advantages for women working in these jobs?**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐☐

____ Fringe benefits (health care, etc.) ☐☐

____ Being able to work outdoors ☐☐

____ Being able to work indoors ☐☐

____ Physical nature of the work ☐☐

____ Chance to learn new skills ☐☐

____ Chance to use exising skills or training ☐☐

____ Working as part of a small group or team ☐☐

____ Being able to work alone ☐☐

____ Working hours or shifts ☐☐

____ Opportunity for overtime ☐☐

____ Seasonal nature of the job ☐☐

____ Opportunity for advancement or promotion ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

After each response, probe further — **Can you think of any other advantage or benefit of this type of work?**

24. **Now, could you tell me what you think would be the main disadvantages for women working in these jobs?**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay too low ☐☐

____ Having to work outdoors ☐☐

____ Having to work indoors ☐☐

____ High noise levels ☐☐

____ Dirty or dusty workplace or job site ☐☐

____ Risk of injury on the job ☐☐

____ Physical nature of the work ☐☐

____ Working hours or shifts in general ☐☐

____ Overtime demands ☐☐

____ Seasonal nature of the job ☐☐

____ Problems getting to and from work ☐☐

____ Boring or routine nature of the job ☐☐

____ Little chance to learn new skills ☐☐

____ Little chance to use existing skills ☐☐

____ Little chance of promotion or advancement ☐☐

____ Having to work for a male foreman or supervisor ☐☐

____ Having to work with a group or team of men ☐☐

____ Other, specify:______________________ ☐☐

____ Other, specify:______________________ ☐☐

____ Other, specify:______________________ ☐☐

After each response, probe further — **Can you think of any other disadvantage of this type of work; something else which would "turn women off" these jobs?**

25. **Can you think of some ways to reduce or eliminate some of these drawbacks? Are there things that you, the employer, or others can do to remove these problems, and make these jobs more appealing to women?**
Record up to three responses to be coded later

______________________________ ☐☐

______________________________ ☐☐

______________________________ ☐☐

END THE INTERVIEW BY ASKING THE RESPONDENT IF HE/SHE HAS ANYTHING MORE HE/SHE WOULD LIKE TO ADD. RECORD RELEVANT COMMENTS FOR LATER CODING.

Compusearch/IMSA

Maintenance Occupations Survey: Employers (Excl. MTO)

Hello, I'm ____________________ from Compusearch Market and Social Research. I'd like to get your opinion about certain kinds of jobs. We are conducting a survey for a government employer who wants to find out about women's attitudes toward working in the highway maintenance field. These questions will take only about fifteen minutes of your time. All of your answers will be kept completely confidential; information about you will not be supplied to anyone. Your responses will be compiled with all the others who have responded, and will not be reported individually.

If you wish to participate, but can't do so right now, give me your name and telephone number, and I will call you at a more convenient time. We can then do the survey over the telephone.

Name ____

Telephone ____________________

Call back to complete survey: Date __________ Time __________

Compusearch / IMSA

Maintenance Occupations Survey: Employers (excl. MTO)

1. **How many employees do you have in total, in what may be broadly defined as "blue-collar" occupations?**

EXPLAIN IF NECESSARY — **These would include jobs in processing; machining; product fabrication, assembly, and repair; construction trades; transportation; and material handling.**
Record actual number, 999 = Not Answered ☐☐☐

2. **What percentage of these are women?**
Record percentage, 999 = Not Answered ☐☐☐

3. **How many employees do you have in total, in what may be broadly defined as "maintenance" occupations?**

EXPLAIN IF NECESSARY — **These would include equipment operators, repair crew members, and some specialized trades.**
Record percentage, 999 = Not Answered ☐☐☐

4. **What percentage of these are women?**
Record percentage, 999 = Not Answered ☐☐☐

5. **In general, what jobs do female blue-collar workers tend to be employed in?**
Record up to five responses for later coding

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6. **Where do these applicants typically come from?**

PROBE — Are they friends or relatives of current employees? Does your company recruit applicants in local high schools? In colleges and universities? Etc...
Record up to three responses for later coding

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7. **Over the past year, approximately how many women applied to work for your company?**
Record number, 999 = Not Answered

8. **What percentage of these women were seeking blue-collar jobs?**
Record percentage, 999 = Not Answered ☐☐☐

9. **Are there certain blue-collar jobs in your company that women generally are not interested in?**
Code 1 = Yes; 2 = No; 3 = Unsure/Don't Know ☐

IF "NO" THEN GO TO QUESTION 12

10. **What jobs are these?**
Record up to five responses for later coding

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11. **Why do you think women are not interested in these jobs?**
Record up to three responses for later coding

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12. **Over the past year, how many women applied for "maintenance" jobs with your company?**

EXPLAIN IF NECESSARY — **These jobs would include equipment operators, repair crew members, and trades**
Record percentage, 999 = Not Answered

☐☐☐

IF NUMBER OF APPLICANTS WAS ZERO, THEN GO TO QUESTION 17

13. **What percentage of these women were suitably qualified for "maintenance" jobs?**
Record percentage, 999 = Not Answered

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14. **What skills or qualifications do you normally require for these jobs?**
Record up to five responses for later coding

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15. **How many of these female applicants were actually hired?**
Record number, 999 = Not Answered

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16. **What kinds of jobs were they hired for?**
Record up to three responses for later coding

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17. **Has your company actively recruited women for maintenance jobs?**

EXPLAIN IF NECESSARY — **These jobs would include equipment operators, repair crew members, and trades**

Code 1 = Yes; 2 = No; 3 = Don't Know/Not Sure

☐

IF "NO" OR "NOT SURE" THEN GO TO QUESTION 21

18. **What strategies have been used in this recruitment?**
Record up to five responses for later coding

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19. **How effective would you say these have been?**
Record up to three responses for later coding

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20. **Now I'd like to show you a list of possible advantages or benefits of working in blue-collar jobs. First, I'd like to ask you if there are any advantages or benefits which you feel are important, but are not on this list.**
(If "Yes", record below under "Other.).

I'd like you to rank the top five advantages, as you see them, for women seeking blue-collar jobs. For the average female job-seeker, tell me what you think is the most important advantage of a job, the second most important, and so on to the fifth most important.

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐

____ Fringe benefits (health care, etc.) ☐

____ Being able to work outdoors ☐

____ Being able to work indoors ☐

____ Physical nature of the work ☐

____ Chance to learn new skills ☐

____ Chance to use existing skills or training ☐

____ Working as part of a small group or team ☐

____ Being able to work alone ☐

____ Working hours or shifts ☐

____ Opportunity to work overtime ☐

____ Seasonal nature of the job ☐

____ Opportunity for advancement or promotion ☐

____ Other, specify:______________________ ☐

____ Other, specify:______________________ ☐

____ Other, specify:______________________ ☐

21. **Are there any changes which could be made by you or by others which would make blue-collar work in general more attractive to female job-seekers?**
Record up to three responses for later coding

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______________________________ ☐☐

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22. **Are there any other ways to encourage women to consider blue-collar jobs?**
Record up to three responses for later coding

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23. **Now I'm going to show you a list of possible disadvantages or drawbacks of blue-collar jobs. Again, I'll begin by asking you if there are any disadvantages or drawbacks which you feel are important, but are not on this list.**
(If "Yes", record below under "Other.).

This time, I'd like you to rank the five worst disadvantages of work, as you see them, for women seeking this kind of work. From the point of view of the average female job-seeker, tell me what you think the worst drawback of blue-collar work is, the second worst, and so on to the fifth worst.

SHOW CARD TO RESPONDENT
Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay too low ☐
____ Having to work outdoors ☐
____ Having to work indoors ☐
____ High noise levels ☐
____ Dirty or dusty workplace or job site ☐
____ Risk of injury on the job ☐
____ Physical nature of the work ☐
____ Working hours or shifts in general ☐
____ Overtime demands ☐
____ Seasonal nature of the job ☐
____ Problems getting to and from work ☐
____ Boring or routine nature of the job ☐
____ Little chance to learn new skills ☐
____ Little chance to use existing skills ☐
____ Little chance of promotion or advancement ☐
____ Having to work for a male foreman or supervisor ☐
____ Having to work with a group or team of men ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐
____ Other, specify:____________________ ☐

24. **What do you feel would be seen as the major advantages for women working in "maintenance" jobs?**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited.

____ Pay ☐☐

____ Fringe benefits (health care, etc.) ☐☐

____ Being able to work outdoors ☐☐

____ Being able to work indoors ☐☐

____ Physical nature of the work ☐☐

____ Chance to learn new skills ☐☐

____ Chance to use exising skills or training ☐☐

____ Working as part of a small group or team ☐☐

____ Being able to work alone ☐☐

____ Working hours or shifts ☐☐

____ Opportunity to work overtime ☐☐

____ Seasonal nature of the job ☐☐

____ Opportunity for advancement or promotion ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

____ Other, specify:________________________ ☐☐

After each response, probe further — **Can you think of any other advantage or benefit of this type of work?**

25. **Now, could you tell me what you think would be the main disadvantages for women working in these jobs?**

SHOW CARD TO RESPONDENT

Code rank number: 1 = First; 2 = Second; etc. for each factor cited — code 0 if not cited. ☐☐

____ Pay too low ☐☐

____ Having to work outdoors ☐☐

____ Having to work indoors ☐☐

____ High noise levels ☐☐

____ Dirty or dusty workplace or job site ☐☐

____ Risk of injury on the job ☐☐

____ Physical nature of the work ☐☐

____ Working hours or shifts in general ☐☐

____ Overtime demands ☐☐

____ Seasonal nature of the job ☐☐

____ Problems getting to and from work ☐☐

____ Boring or routine nature of the job ☐☐

____ Little chance to learn new skills ☐☐

____ Little chance to use existing skills ☐☐

____ Little chance of promotion or advancement ☐☐

____ Having to work for a male foreman or supervisor ☐☐

____ Having to work with a group or team of men ☐☐

____ Other, specify:____________________ ☐☐

____ Other, specify:____________________ ☐☐

____ Other, specify:____________________

After each response, probe further — **Can you think of any other disadvantage of this type of work; something else which would "turn women off" these jobs?**

26. **Can you think of some ways to reduce or eliminate some of these drawbacks? Are there things that you, the employer, or others can do to remove these problems, and make these jobs more appealing to women?**

Record up to three responses to be coded later

______________________________ ☐☐

______________________________ ☐☐

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END THE INTERVIEW BY ASKING THE RESPONDENT IF HE/SHE HAS ANYTHING MORE HE/SHE WOULD LIKE TO ADD. RECORD RELEVANT COMMENTS FOR LATER CODING.